

THE ARCHITECT & BUILDING NEWS

IN THIS ISSUE

- NEW CAR SHOWROOM
- MIDLAND TYPESETTERS' NEW FACTORY
- CURRENT MARKET PRICES

OCTOBER 18, 1951 · VOL. 200 · NO. 4322 · ONE SHILLING WEEKLY

Greatways to Progress

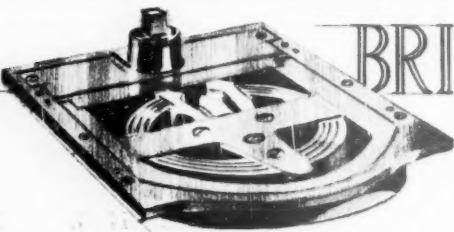


Australia House—

Foundation Stone laid by H.M. King George V, 24th July, 1913.

Officially opened by H.M. King George V, 3rd August, 1918.

Architects:—A. Marshall Mackenzie, & Son, F.F.R.I.B.A.

The  BRITANNIC

Floor Spring

Specified by leading architects.

WILLIAM NEWMAN & SONS Ltd

HOSPITAL STREET, BIRMINGHAM 10. Established over 200 years.

Problems of water treatment you cannot ignore



Practical experience has proved that Threshold Treatment of water with Calgon is a simple, effective and economical way of dealing with such problems as:

Deposition of scale in calorifiers, heaters, hot water circuits and cooling systems.

Choking of jets in air-conditioning plant.

Corrosion of iron water mains.

A copy of a technical booklet describing Threshold Treatment will be sent on request.

can best be solved by threshold treatment

CALGON

for large installations.

WITH

MICROMET

for smaller hospitals, hotels, blocks of flats and small installations.

ALBRIGHT & WILSON LTD.

WATER TREATMENT DEPARTMENT, 49 PARK LANE, LONDON, W.1. TELEPHONE: GROSVENOR 1311. WORKS: OLDBURY & WIDNES

TDW 134

A

Reproduced from: THE BOOK OF ENGLISH TRADES & Library
of the Useful Arts, 1821



THE MASON

With sharp and practised strokes, the master-mason carves the quarried stone. Tools of his trade, the square and compasses are symbols of his life. Working towards perfection, his artistry in stone and marble will live through aeons of recorded time . . .

AND CRAFTSMANSHIP LIVES ON With the coming of the Industrial Revolution and the development of machinery, the era of the lone craftsman passed into history. No longer was one man single master of his trade. Instead, the work was divided among specialists, each one a craftsman in his own particular line. To-day, the individual is an expert, whose specialised skill is an essential part of the whole.

★
AT CELLON we believe in the essence of craftsmanship. For example, after a new decorative finish has been produced by our laboratory specialists, it is tested by experts who examine every Cellon product under the conditions of use for which it is intended. Like the mason of old, whose skilled chisel inspired cold blocks of stone with all the warmth of beauty, we always strive for perfection in our finished work.

The existing range of Cerrux Decorative Paints includes Gloss, Satin and Matt Finishes, Flat under-

coatings, Primers for all types of surface and, also, Cerrusco Texture and Water Paints. The skill and forethought embraced in our work together with constant research have established perfect uniformity among our standard finishes. The result is that you can always be sure of consistency of quality when re-ordering a particular finish.

On the development side, we maintain a continuous service for the production of special finishes for special needs outside the standard range. It is, in fact, a service by craftsmen for craftsmen.

CERRUX

DECORATIVE PAINTS

Created
by Craftsmanship



CELLON
Aircraft
Finishes



CERRIC
Wood
Finishes



CERRUX
Marine
Paints



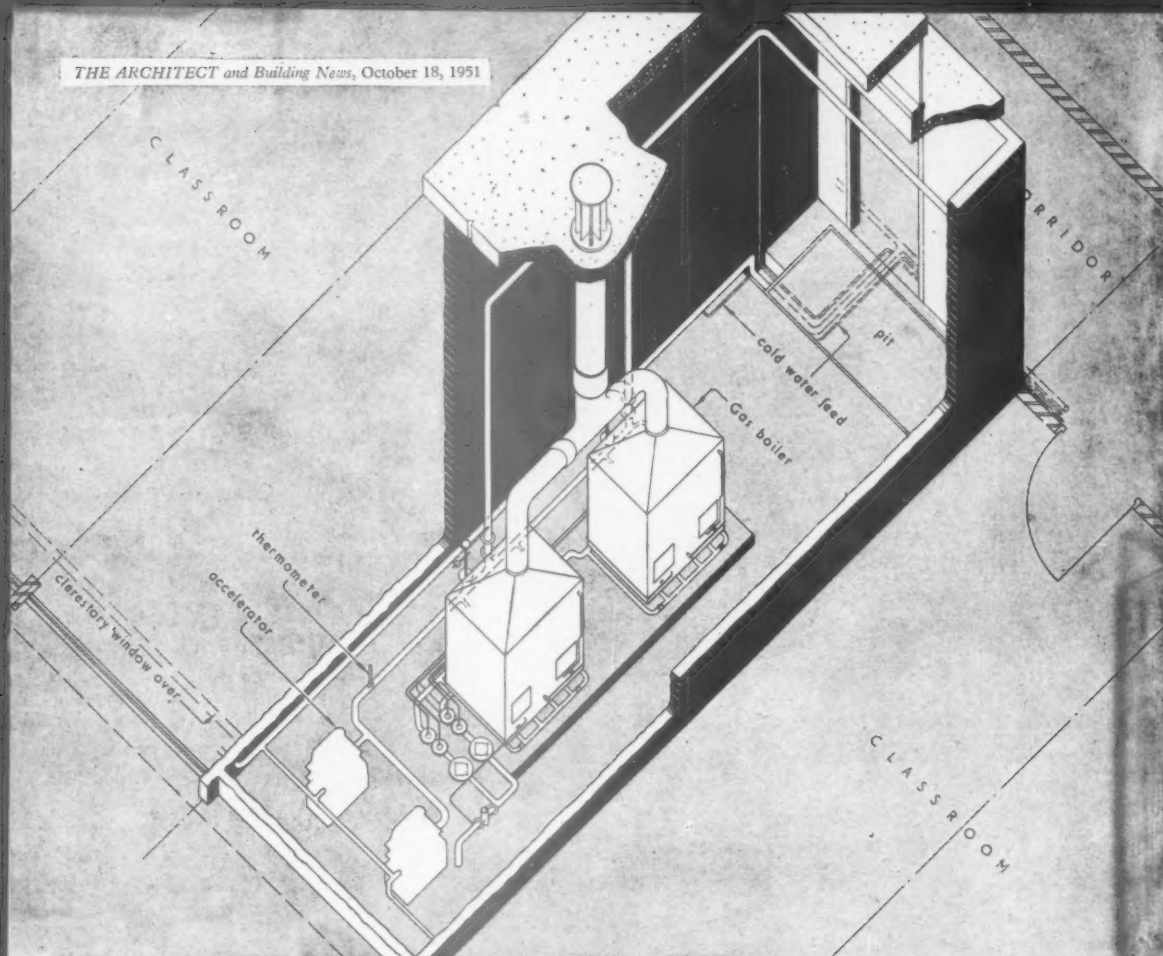
CERRUX
Coach
Paints



CERRIC
Industrial
Finishes

CELLON LIMITED • KINGSTON-ON-THAMES • PHONE KINGSTON 1234

CVS-082



Boiler house for New Classroom Block, Twickenham Technical College. County Architect : C. G. Stillman, F.R.I.B.A.

GAS solved this school heating problem

Gas-fired low pressure central heating is installed in this most recent extension to Twickenham Technical College, opened in 1948.

Factors which influenced the choice of boiler plant were : the distant situation of the new buildings in relation to the main boiler house ; the difficulty of providing fuel storage and access to it ; and the difficulty of providing a suitable chimney that would be unaffected by the proximity of adjacent high buildings.

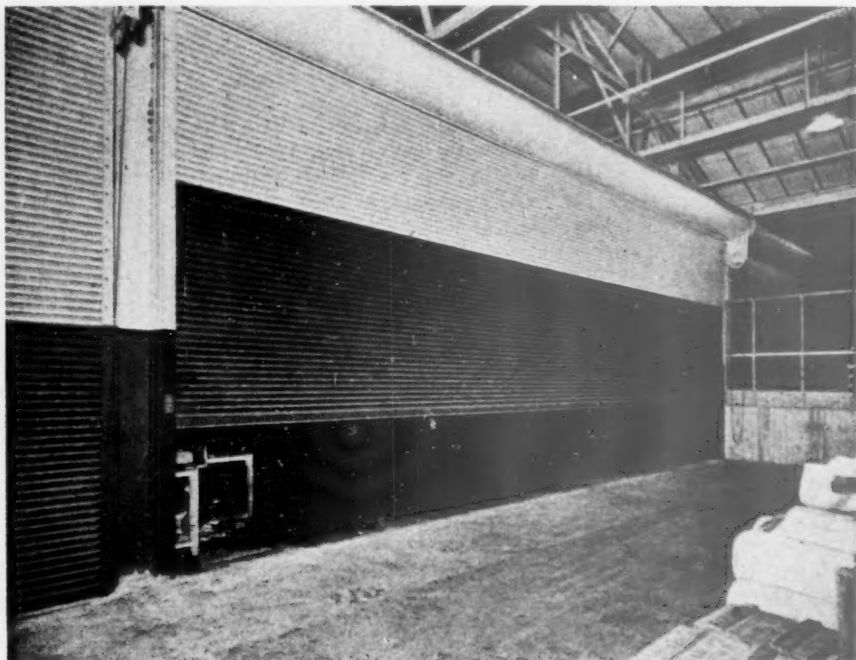
The new single-storey block contains eight classrooms with cloakroom accommodation. The total catalogue rating of the two automatically controlled boilers is 720,000 B.T.U's per hour.

Helpful information on this and other aspects of the problem of securing efficient services for cooking, hot water, space heating and refrigeration may be obtained from the local Gas Undertaking.

GAS

KINNEAR PATENT STEEL ROLLING SHUTTERS

Registered
KINNEAR
Trade Mark



R.A.F. Station, Burtonwood, Warrington.

This illustration shows three Kinnear Shutters, each 16' 1" high x 39' 6" wide.

We have also supplied for this Depot 55 of our Kinnear Shutters, varying in size from 12' 6" to 16' 2" high x 11' 0" to 12' 0" wide.

All these Shutters, including the three largest illustrated above, are arranged for operation by means of hand-chain only: no electrical gear being provided.

These shutters were installed in 1939.

**Kinnear Shutters are the Shutters
by which other Shutters are judged**

Sole Manufacturers:

ARTHUR L. GIBSON & CO LTD

Branch Offices: — Birmingham: 136 Yarnsgate Road
Highbury 2804

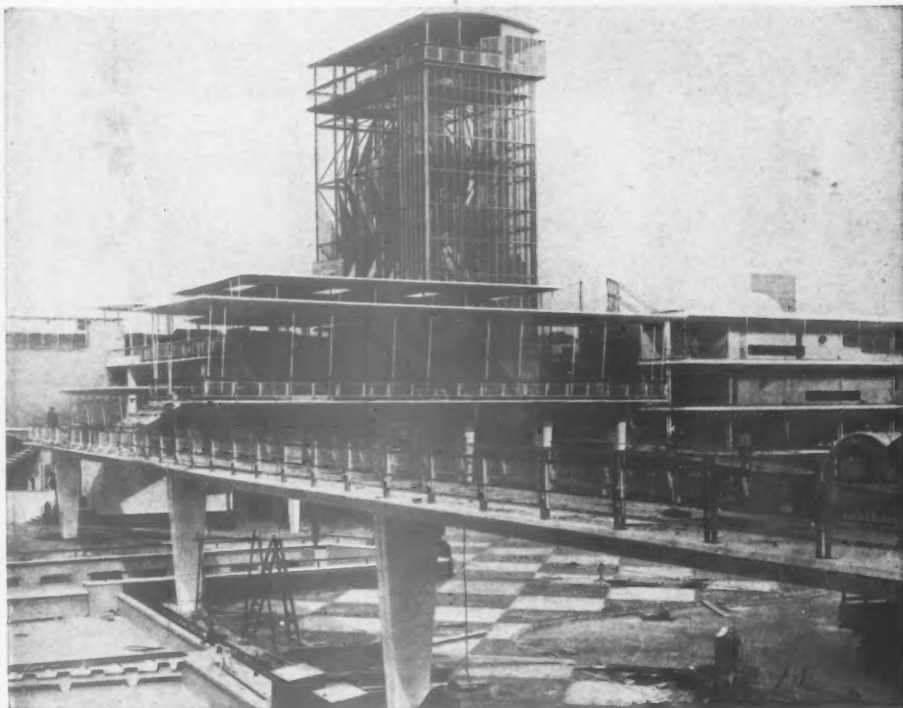
Manchester: 79, Piccadilly
Central 1008

Glasgow: Lister Road, Hillington
Halfway 2928

Head Office:
Radnor Works - Twickenham
Telegrams: "Shannies Twickenham"
Telephone: Popesgrove 2276

KIRK & KIRK LTD

BUILDING & CIVIL ENGINEERING CONTRACTORS



Post-Tensioned Concrete Bridge. Waterloo Bridge Main Entrance and Viewing Tower.

Architects: Fry, Drew & Partners, F.F.R.I.B.A.

Consulting Engineers: Freeman, Fox & Partners; R. T. James & Partners; Ove Arup & Partners.

Contractors to the Festival of Britain

Work comprises:

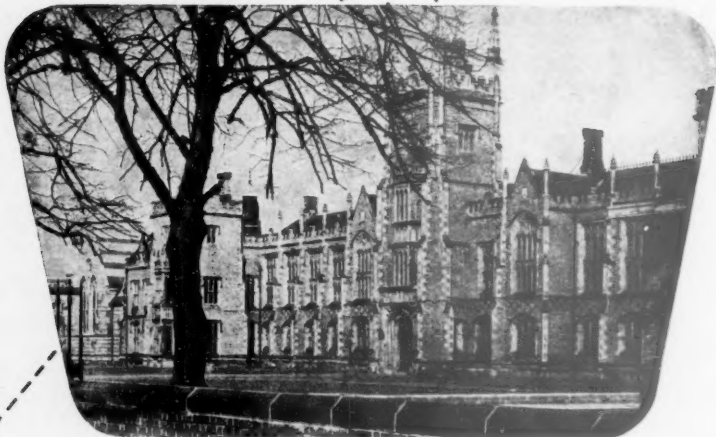
WATERLOO BRIDGE MAIN ENTRANCE
VIEWING TOWER ★ HARBOUR BAR
RIVERSIDE RESTAURANT
POST-TENSIONED CONCRETE FOOTBRIDGE
TO CONCERT HALL
SPORTS AND OPEN AIR EXHIBITION
NURSERY SCHOOL EXHIBITION, ETC., ETC.

ATLAS WORKS • PUTNEY • LONDON • S.W.15

Telephone: Putney 7244 (10 lines).

Telegrams: Fourkays, Wexphone, London.

THOUGHT FOR FOOD



Food, to the undergraduate, is a subject worthy of thought and care. To those preparing his meals, balancing calories and digestion against rugby after lunch, the task is greatly simplified if the most efficient cooking appliances are available. Queen's University, Belfast, has solved this aspect of the problem by calling in Radiation (Large Cooking Equipment) Ltd., who have supplied an installation exactly suited to requirements.

Questions on any Large Kitchen Equipment problem will be answered by our Planning Engineers without obligation.



Radiation

(LARGE COOKING EQUIPMENT) LTD.,

Palatine Works, Warrington, Lancs.

London Offices & Showrooms: 7 Stratford Place, W.1

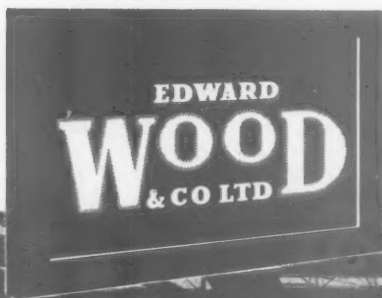
A Glimpse of the Past

The massive architecture of the lost Aztec civilisation remains a subject for debate and further research.



Builders of the Future

Modern buildings may not have to last quite so long, though their origin will puzzle no one. Many of those which serve the community today and many more which will enhance the future are the work of Edward Wood & Co. Ltd. The illustration below is of a 200 ft. girder for a bus depot.

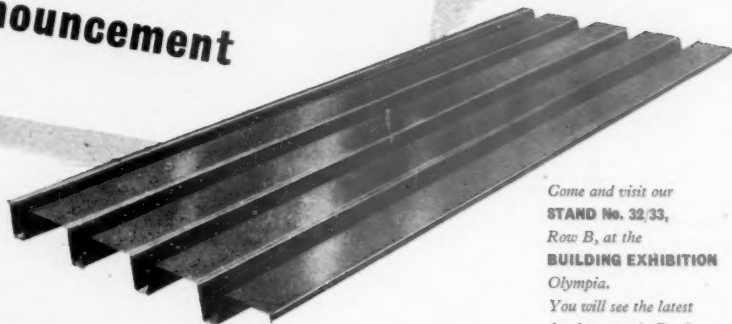


CONSTRUCTIONAL ENGINEERS

Registered Office & Works: **MANCHESTER 17** Tel: TRAfford Park 2341 (10 lines)

London Office: 68 Victoria St., S.W.1. Tel: Victoria 1331/2. Technical Offices: BIRMINGHAM, LOUGHBOROUGH

An important
BITUMETAL
announcement



Come and visit our
STAND No. 32/33,
Row B, at the
BUILDING EXHIBITION
Olympia.
You will see the latest
developments in Roofings.

SINCE its inception a few years ago, 'BITUMETAL' has rapidly acquired the confidence of Architects and Engineers in many parts of the country. At no time, however, can it be said that finality has been reached in the presentation of a product or service. Our Roofing Development Department is constantly carrying out research into conditions affecting application and purpose, and recently it was observed that an aluminium sheet of 18 gauge fabricated into such a substantial unit provided in many instances a greater load-bearing capacity than was strictly necessary.

We therefore introduced 20 gauge 'BITUMETAL' Roof Deck eminently suitable for many classes of

buildings, and at the same time, economical in the use of aluminium. Deck units of 18 gauge are still being produced for high load-bearing capacities, but generally it will be found that 20 gauge units will meet your requirements and at a considerably reduced price.

Full technical data of this important change is available at any of the undernoted Area Offices.

WILLIAM BRIGGS & SONS LTD

DUNDEE 'Phone: 82211 (10 lines)

LONDON Vauxhall Grove, S.W.8. 'Phone: Reliance 2214/5 and 1451/2

ABERDEEN
Bedford Road. 'Phone: 43391

EDINBURGH, 12
Murrayfield Station
'Phone: 61213

LEICESTER
Belgrave Road Station
'Phone: 60306

NORWICH Trowse Millgate. 'Phone: 26863

BRISTOL 3
Stillhouse Lane, Bedminster
'Phone: Bristol 64147

GLASGOW, C.3
200 Old Dumbarton Road
'Phone: Western 3001/2

LIVERPOOL
Kirkby Trading Estate
'Phone: Simonswood 3266/7



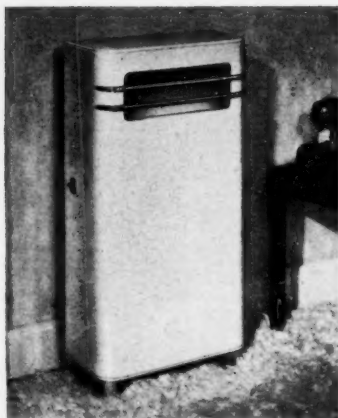
ROOF PLUS CEILING PLUS INSULATION



Lifts
and
Escalators
by
J. & E. HALL LTD

LIFT & REFRIGERATING ENGINEERS DARTFORD KENT

Two new Solectra Electric Radiators that are efficient *and* safe



No. 209 Convector—Exceptional efficiency and well proportioned design make this the ideal heating unit for halls, nurseries, shops, offices etc. Eminently suitable where a high safety factor is required, as there are no exposed elements. Provides a rapid flow of warm air; the full load of 1½kw can be reduced to 750 watts by a switch at the side of the body. Finished in beige stoved enamel. Voltage as required. Height 29½", width 14", depth 7½".

No. 267 Flood Heater—Fixed at high level and controlled by remote switching, this new 1kw heater is entirely safe in operation. The scientifically designed curve of the polished reflector projects a fan shaped beam which ensures maximum distribution of heat over a wide area. Finished in fine quality cream stoved enamel with highly polished reflector. Voltage as required. Height 9½", width 12", depth 8½".

This is the heater which was recently demonstrated on the B.B.C. Television Programme.

Write for descriptive leaflets and prices

Bratt Colbran SOLECTRA RADIATORS

BRATT COLBRAN LIMITED, 10 MORTIMER STREET, LONDON, W.1.

Scottish Showrooms: A. CALDWELL YOUNG & SON, 200 St. Vincent Street, Glasgow, C.2
Northern Ireland: J. C. HOLLAND & COMPANY LIMITED, 48 Bedford Street, Belfast

*The Quality Felts,
Roofings &
Dampcourses*



★ WRITE FOR SAMPLES
AND LITERATURE



THE QUALITY OF BLACKWELLS ROOFINGS SETS A STANDARD FOR ALL ROOFING PRODUCTS. OVER 50 YEARS' EXPERIENCE MAKES IT POSSIBLE TO OFFER MOST EXCEPTIONAL VALUES.

BLACKWELLS FELTS & DAMPCOURSES ARE MANUFACTURED IN ACCORDANCE WITH THE APPROPRIATE BRITISH STANDARD SPECIFICATIONS



BLACKWELLS & NATIONAL ROOFINGS LTD

ALTRINCHAM · CHES.
TEL. ALTRINCHAM 2641



ERITH · KENT
TEL. ERITH 2641

MARRYAT-SCOTT LIFTS

Here are some of the questions answered for you by the Marryat-Scott Architects Lift Calculating Rule.

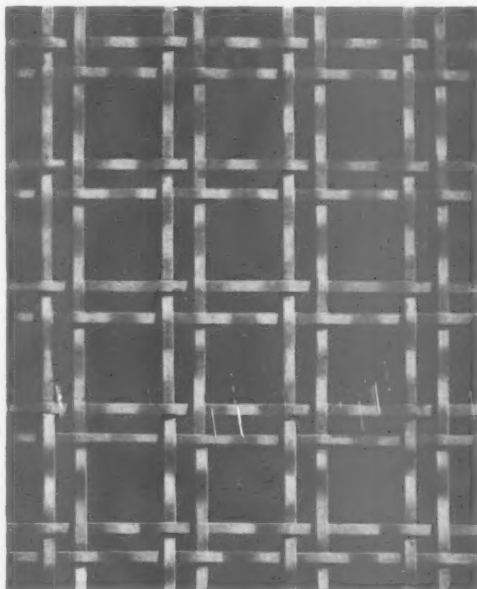
1. To what size should I trim my floors to permit the installations of a Passenger Lift to carry six persons?
2. What will be the load on the surrounding shaft walls?
3. How many people per hour could such a lift deal with, if for example, we agreed on a speed of 200 feet per minute?
4. What size Lift-Car do you recommend for carrying Beds and Stretchers in a Hospital?
5. Can I get a useful Lift for general goods in a shaft size of 6 feet x 6 feet and how large would the lift car be?



MARRYAT & SCOTT LTD
The Lift Manufacturers
Wellington Works, Hounslow, Middlesex

Now available free to Architects on request to any of these addresses:—

LONDON, 40 Hatton Garden • BIRMINGHAM, 41 Water St. • LIVERPOOL, 15 Tithebarn St. • BRIGHTON, 34 Chesham Rd.
BRISTOL, 29 Orchard St. • BRADFORD, 154 Harris St. • EXETER, [22 Oakfield Rd.
GLASGOW, Moncrief St. • CHELTENHAM, 107 St. George's Rd. • BELFAST, 6/7 Queen St. • DUBLIN, 38 Dawson St.



HARCO RIBBON WIRE

The artistic effect of Harco Ribbon Wire renders it particularly suitable for use where care of design and appointment are of major importance. Architects will appreciate that it not only screens the unsightly, but allows free circulation of air. The patterns in which Ribbon Wire can be woven, make it the perfect selection for Lift Shaft Enclosures, Ventilating Panels, Radiator Covers, Electric Heater Covers, etc. Illustration shows Pattern No. 1376 W. Other Patterns and full particulars in Catalogue A 744.

Harvey

G. A. Harvey & Co. (London) Ltd. Woolwich Road, London, S.E.7



The things a boy learns at Boulton & Paul stand him in good stead for his future career. Even with large quantity orders the emphasis is always upon quality, for which the Company has been renowned for well over a Century. Almost every conceivable type of manufactured woodwork is produced at our Norwich factory. May we quote and advise you?

when the joinery
is
by

**BOULTON
AND PAUL**
IT'S A FIRST CLASS JOB

NORWICH • LONDON • BIRMINGHAM

CRC 51



With the Courtesy of the "Daily Mail" (Photo Adapted)

Specify 'Rufflette' Runway

a complete and specialised range of curtain suspension systems

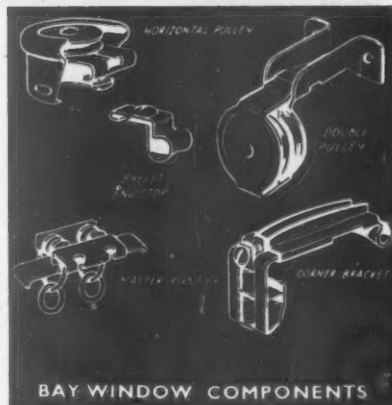
'RUFFLETTE' BRAND CORD-CONTROLLED RUNWAY FOR BAY WINDOWS



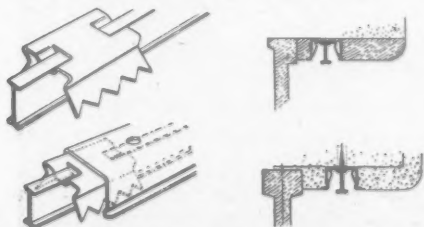
'RUFFLETTE' BRAND RUNWAY FOR STRAIGHT WINDOWS



★ For smooth and trouble-free operation specify 'Rufflette' brand cord-controlled Curtain Runway. It is recommended for use in large establishments, hotels, offices and residences where curtain can be controlled without handling. Available for bay as well as straight windows.



'RUFFLETTE' BRAND RECESSED (BUILT-IN) CURTAIN RUNWAY



'Rufflette' brand Recessed Curtain Runway is a permanent and integral part of building construction. It is inexpensive and can be fitted into wood or plastered lintels. The runway is held rigidly in position by a patent spring clip without screws and is a concealed and a permanent fitting.

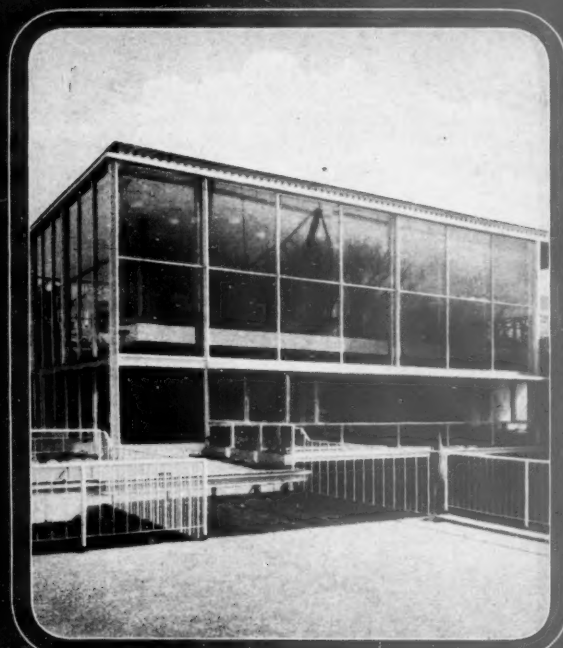
FOR FULL SPECIFICATIONS PLEASE WRITE TO:

THOMAS FRENCH & SONS LTD., CHESTER ROAD, MANCHESTER 15
 FACTORIES: Manchester, Wythenshawe, Fall River, Mass., U.S.A. LONDON OFFICE: 156-162 Oxford Street, W.1
 Also at BRITISH EMPIRE BUILDING, NEW YORK CITY, and 75 VICTORIA SQUARE, MONTREAL



BEACON

DOORS
FASTLIGHTS
AND WINDOWS



Installed at the REGATTA RESTAURANT, Festival of Britain
Architects: Misha Black, O.B.E., F.S.I.A. and Alex. Gibson, A.R.I.B.A.

JOHN THOMPSON BEACON WINDOWS
LIMITED

Ettingshall, Wolverhampton & Imperial House, Kingsway, London, W.C.2

Telephone: BILSTON 41121

Telephone: TEMPLE BAR 3216

SEE OUR EXHIBIT AT THE BUILDING CENTRE, 9 CONDUIT STREET, LONDON, W.1.



5 good reasons why it pays to use MARLITH ROOF INSULATION

- **IT'S HIGHLY EFFICIENT.** With a thermal conductivity of only 0.58 B.Th.U.s per sq. ft., per hour, per 1" thick, per 1° Fahrenheit difference in temperature. MARLITH ROOF INSULATION has better insulating value than any other commonly used roof insulating material. It serves effectively in keeping heat in or out—permanently.
- **DURABLE. IT WON'T WARP OR DECAY.** Varying temperature or humidity will not cause this roof insulation to warp, swell, or shrink. The chemical treatment of MARLITH ROOF INSULATION during its process of manufacture renders the slabs completely proof against attack by vermin, fungus, or dry rot.
- **IT HAS AMPLE STRENGTH.** Crushing strength tests carried out by the N.P.L. show that a load of 19 tons per sq. ft. is necessary to compress a standard slab to 50% of its normal thickness. This strength, coupled with the tough surface of MARLITH ROOF INSULATION, is ample to withstand normal handling and traffic conditions on the job.
- **IT'S LIGHT IN WEIGHT.** A square foot of MARLITH ROOF INSULATION, 1" thick, weighs only 3 lb. This adds no great load to the roof structure and permits easy handling during application.
- **IT'S EASY TO APPLY.** Standard Roofing practice is followed in applying MARLITH ROOF INSULATION—no special technique is required.

¹ The drawings below show Marlith applied to Marley Eagle Precast Beams. Marlith can, of course, be applied to any normal concrete roof construction.

Oglethorpe County Primary Junior School, Cranham, Essex.
Architect: H. Connolly, F.R.I.B.A. (County Architect).
Contractors: Thos. Bates & Sons Ltd., Romford, Essex.

"Builder" Photograph.

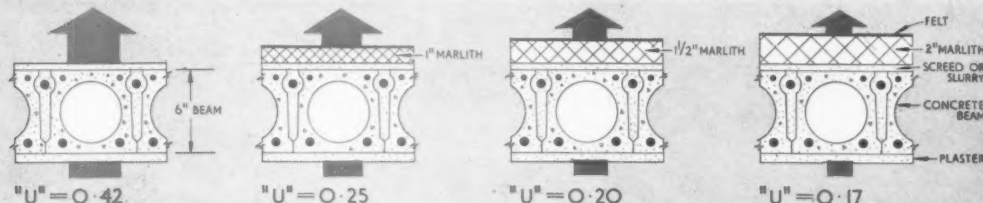
REDUCE "U" VALUE AT A SAVING IN COST

Oglethorpe County Primary Junior School is one of many jobs on which Marlith Roof Insulation has been used. In this case it was laid to the upper surface of the roof, which was constructed of precast concrete beams.

The fixing of Marlith is easy, speedy and straightforward. No skilled labour is required. The surface of the concrete beams is covered with $\frac{1}{2}$ " screed of sand and cement into which 1" Marlith Roof Insulation is laid. The whole surface is then screeded with a thin cement slurry and the roofing felt is applied in the usual manner. The insulation value of the precast beams alone is 0.47 and with felt screeds and plaster 0.42. This thermal transmittance "U" value is reduced immediately from 0.42 to 0.25 by the application of Marlith Roof Insulation. The thermal transmittance may be still further reduced, as indicated in the diagrams below, by the use of thicker Marlith. Apart from the immediate saving derived from the installation of a smaller heater plant and decreased fuel costs, Marlith Roof Insulation will minimise or prevent the formation of condensation.

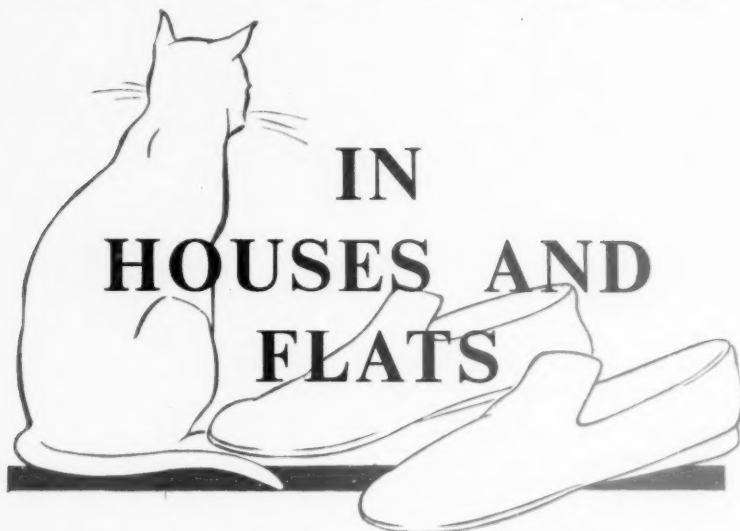
Marlith Wood Wool Building Slabs are manufactured in the following sizes: 6' x 2' x 1", 1½", 2", 2½", and 3" by

THE MARLEY TILE COMPANY LIMITED
London Rd., Riverhead, SEVENOAKS, KENT Tel.: Sevenoaks 2251-8



6

BRINGING COLOUR TO LIFE



The colourful tapestries that bedecked the homes of the more privileged of our ancestors, the paintings that made their ceilings gay, the Blue, Pink and Yellow Drawing Rooms of the stately homes of old England may well justify those who accuse this age of a drab and unimaginative uniformity in its interior decoration. If the accusation has foundation, it is surely not for lack of colour.

At Docker Brothers, for instance, paints, lacquers and varnishes are to-day available in an increasing variety of colours and shades and in finishes—matt, glossy, satin, . . . that our ancestors never knew. What's more, a vast fund of technical information and experience is available to the architect or builder wishing to bring colour to life in the modern home.

HERMASHEEN, for example, is a Semi-Gloss paint with a singularly beautiful "satin" appearance. Supplied in a wide range of pleasing shades suitable for interior decoration, it is highly durable and easy to apply.

DOCKER BROTHERS

Makers of Paints, Lacquers and Varnishes for every purpose

LADYWOOD



BIRMINGHAM, 16

ROOFING SPECIALISTS FOR OVER 30 YEARS

WHATEVER THE TYPE
OF INDUSTRIAL
ROOF
WE CAN REPAIR
OR WATERPROOF IT,
USING SKILLED LABOUR
RESIDENT IN YOUR AREA,
BY THE
Masticon
PROCESS

GLAZED ROOFING

ASBESTOS ROOFING

SLATE ROOFING

FELT ROOFING

ZINC ROOFING

CORRUGATED IRON

CONCRETE & ASPHALT

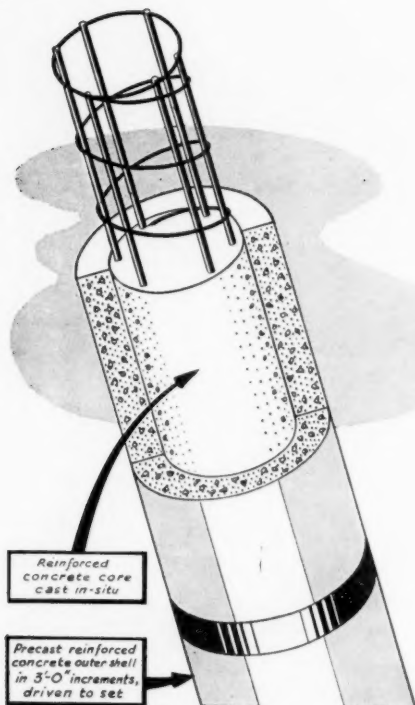
INDUSTRIAL ENGINEERING LTD.

One of the Associated Companies of Kelsey Industries Ltd.

MELLIER HOUSE, ALBEMARLE STREET, LONDON, W.1 • REGENT 1411

OFFICES & TECHNICAL STAFF AT BIRMINGHAM, WOLVERHAMPTON, MANCHESTER, BELFAST, CARDIFF, DUBLIN,
GLASGOW, SHEFFIELD, NEWCASTLE-ON-TYNE, BRISTOL, LEEDS.

Driven Pile OR In-Situ Pile?



This question can always be settled by specifying WEST'S SHELL PILES which combine a driven outer shell with an in-situ cast core.

WEST'S SHELL PILES are backed by the experience and research of a quarter of a century and possess an imposing record of achievement, reliability and versatility.

Full technical information is contained in our latest booklet which we shall be pleased to send on request.

WEST'S PILING & CONSTRUCTION CO. LTD.
Columbia House, Aldwych, London, W.C.2
Telephone: Holborn 4108



**Icknield County Secondary
Modern School**
faced with

Ibstock

BUFF-MULTI RUSTICS

*F. Oliver, A.M.I.C.E., A.M.I.St.E., M.Inst.M.E.,
Borough Engineer & Surveyor, Luton Borough Council*

The Ibstock Buff-Multi rustic facings used for this fine school are natural light-tone bricks. The colours, produced by burning only, vary from brown to light buff.

IBSTOCK BRICK & TILE CO., LTD., nr. LEICESTER 'Phone: 391
LONDON: L.M.S. GOODS DEPOT, WRIGHTS LANE, KENSINGTON W.8
'Phone: Western 1281

THE ARCHITECT & BUILDING NEWS

October 18, 1951

The "Architect and Building News" incorporates the "Architect," founded in 1849, and the "Building News," founded in 1854. The annual subscription, inland and overseas, is £2 15s. 0d. post paid; U.S.A. and Canada \$9.00. Published by ILLIFF & SONS LTD., DORSET HOUSE, STAMFORD STREET, LONDON, S.E.1. Telephone: WATERLOO 3333 (50 lines). Telegrams: "ARCHITONIA, SEDIST, LONDON."

Branch Offices: Coventry: 8-10 Corporation Street; Birmingham: King Edward House, New Street; Manchester: 260 Deansgate, Tel.: Blackfriars 4412 (3 lines), Deansgate 3595 (2 lines); Glasgow: 268 Renfield Street

START WHEN READY

IT is always difficult to understand, when grumbles are considered to be fair and justified by all concerned, why the ills that cause the grumbles cannot be eradicated by mutual consent and co-operation.

The particular grouse that has become a hardy perennial is that of the builder: that he seldom gets drawings and specifications and instructions early enough in the history of a job to plan and execute it with full economy and efficiency. As the average contractor estimates on a bill of quantities, the price and contract being fixed thereby, it can, we suppose, be assumed that the economical side of the question is one that affects, after the signing of the contract, the builder only; that is, how economically he can plan the organization and completion of the job. Full drawings and information, if on the job as soon as it starts, will help him to have an easier life and, perhaps, a larger profit. So much for the economy side after the signing of the contract. The same side during the pre-quantity stage of any job means, if full drawings are available for taking-off, a probable saving of money for the client, because they should produce fuller and more accurate bills, with less necessity for remeasurement.

There is, in other words, nothing to be said against adequate preparation for any job—it makes for efficiency and economy all round. But why does the principle not get itself established with client, architect and contractor alike? Why not some concentrated attempt to see that it is a usual and standard method of procedure?

In most cases we feel the origin of some of the trouble can be traced back to the client, who does not realize the extent of the work involved in the design of a large building, of the number of drawings and amount of co-ordination of specialists' work that goes to make up the summarized information

required to enable the contractor to plan his attack on the work, with the efficiency of full knowledge, from the start.

By whom, however, is the client to be educated? The well-established and experienced architect can say that he must have "x" months to prepare drawings for the job and that therefore the job cannot commence until these are ready. Thenceforward the job will go twice as easily and probably faster than any bull-headed rushes made at the wrong stage.

Unfortunately many clients are impetuous, being fearful of one thing or another; architects are not always so well established or so strong as to keep the client on the leash and so the job is hurried on to the stocks in a half-baked state of preparation. Many clients—in spite of their actions—are business men and most contractors are in the same category; why do not the latter, talking the same language as the former, join with the architects' restraining hand—to the end of greater efficiency and economy?

The modern contractor, as a part of the building industry, is not altogether blameless from another point of view. The drawings now wanted for any large jobs are far more numerous than was the case, say, a hundred years ago. This is not altogether due to the greater complexity of modern buildings or the incidence of new materials; it is also to be attributed to the fact that building as an established tradition of method and knowledge has largely disappeared. At one time the architect could, with safety and justification, leave many things to the builder and his leading hands—they knew how to do what was required without all the drawings that are now supplied—it was only the over-all planning or the special and exceptional details that asked for elaboration.

The increase in complexity of modern buildings

has not led to the builder correspondingly employing and training more specialist leading-hands to take the place of the experienced craftsmen of the past, even if it has produced much more sub-contracting and external specialists. The architect, therefore, cannot rely so thoroughly on his present-day contractor as he could on his old-time builder and has to co-ordinate a larger field with a consequent increase in the amount of his work, in the number of drawings and other documents required for the job and, of course, in the time necessary in which to do his work.

If "the client must be educated" (and here we quote from a joint memorandum issued by the R.I.B.A. and the N.F.B.T.E.) then the real issue is one of ways and means. Pious hopes and generalized grumbles must be converted into specific action. We would suggest that it is for the benefit of architect, quantity surveyor, contractor and specialist alike

that real action should be taken as a concerted measure. This means getting together and planning the action in detail, with carefully co-ordinated verbal, written and exhibition propaganda over a reasonably long term of time—a policy which will require not merely words and print but money also. It is possible, for example, to visualize an exhibition, sponsored by the R.I.B.A., and supported by the other professions concerned and the contractors and unions of operatives, which would show the complete organization of a medium-sized building job, together with every drawing and other document shown in its correct relationship to the time and progress factor; an exhibition that should be held in a place to which the layman and business man would go and learn something of the role of client, and at the same time know that the show was a combined effort of the whole industry for his own benefit.

EVENTS AND COMMENTS

APPOINTMENT FOR J. M. RICHARDS

The appointment of Mr. J. M. Richards as a member of the Royal Fine Art Commission will be generally welcomed. Mr. Richards is a fearless critic of bad design and bad architecture. Perhaps his best-known contributions to architectural criticisms were his condemnation of L.C.C. post-war housing and of the Lessor scheme. He has, of course, been known to criticize opinions of the Royal Fine Art Commission and although he will now, as a member, be able to express his views directly to that body we, the public, shall miss them. It would indeed be sad if so fine a critic were swallowed up never to be heard of more. But I do not think that Mr. Richards will allow that to happen.

DESIGN IN BEAULY, BUILT IN TRUTH, VERY EXPENSIVELY

The Inverness County Council has been refused permission to proceed with the construction of twenty houses at Beaulay because the lowest tender was £2,450 per house. No doubt, while the Department of Health and the County Council are thinking of ways and means of reducing the estimates the cost will go up again. Speaking at the A.A. last April, Mr. Henry Chisholm, Chairman of Corby New Town Corporation, said, "There is only one contribution to that problem (the cost of building) which a layman can make, and that is to say that if you want to save money on the building of houses you must build them now, because whatever the cost of houses to-day, in six months' time it will be half as much again." While Mr. Chisholm's price prediction has not quite come true, the first part of what he said still holds good.

SELF-SERVICE SHOPS

I am surprised that more self-service shops have not been opened in this country. Perhaps the cost of equipment is a deterrent. It does, of course, mean the complete reorganization of a business. The current issue of *Byggmästaren* is devoted to the design of self-service shops and gives plans and pictures of several.

I notice that a showroom for self-service equipment has just been opened in Tottenham Court Road. Compared with the Swedish equipment the British looks to me unnecessarily luxurious and may mean that its design is based on American rather than Swedish patterns. If this is so it is a pity.

PENRHYN CASTLE FOR NATIONAL TRUST

The National Trust has accepted Penrhyn Castle and 40,617 acres of North Wales, which formerly belonged to the late Rt. Hon. Hugh Napier, 4th Baron Penrhyn. The gift comes from the Treasury through the National Land Fund. Thomas Hopper designed the castle which was completed about 1847. It stands on the site of earlier works dating back to the eighth century and the earliest remains date from 1438 when Gwilym ap Gryffydd obtained a licence—lucky fellow—to build a tower. The present castle's immediate predecessor was a yellow brick castellated mansion designed by Samuel Wyatt about 1780. Among the more remarkable pieces of furniture in the castle are two vast four-poster beds made of Penrhyn slate. The land which the Trust has accepted includes much land at the head of the Nant Ffrancon Pass with Llyn Idwal, the beautiful hidden lake on the way up to the Devil's Kitchen, the Glyders, Tryfan and the Carneddws, and an even larger area near Yspty Ifan, south-east of Bettws-y-Coed.

C.I.A.M. 8 REPORT

I understand that the report on CIAM 8, held at Hoddesdon in July, is now ready. You may remember that the theme of the conference was the Core of the city. The report, which is duplicated and bound in grey paper, can be obtained from the Hon. Sec., The MARS Group, 9, Conduit Street, London, W.1. Price 25s, postage 9d.

BARRY ON THE FESTIVAL

The *New Statesman* published, last week, an excellent article on the Festival by Sir Gerald Barry entitled "After

the Ball is Over." Sir Gerald reviews the whole festival with rather naturally more detail of the South Bank Exhibition than of the rest. He also makes a strong plea for quick and sensible decisions on the future of the site. Correspondence is already appearing in *The Times* about the dejected and untidy look of the South Bank, with miles of barbed wire and chestnut paling. From gossip and articles in the Press I had begun to think that much had in fact been decided about the future of the site, but from Sir Gerald's remarks it seems that all is still very uncertain. A straight question put in *The Times* to the Ministry of Works produced a most unsatisfactory answer about the future office building for which a part of the site is said to have been reserved. No architect has as yet been appointed and the Ministry attempts to allay fears by pointing out that publicity is always given to schemes for Government Headquarters buildings that are put in hand. With memories of the Colonial Office and Carlton House Terrace affairs still fresh one may perhaps be excused a wry smile.

The L.C.C. has made itself fairly clear on its long-term policy for the South Bank but in a statement issued on October 8 it remains vague about immediate plans for retaining some of the buildings and planting. Let us hope that minds will be made up soon for we do not want a splendid site on the centre of London to become a rotting carcass like the White City or Wembley sites, although it would make a far more distinguished ruin than either.

BENNETT'S HOLBORN

An evening paper reports that Sir Thomas Bennett is designing another large block of offices in Holborn to form "a balanced whole" with Atlantic House recently built to Sir Thomas' designs on the adjoining site. Sir Thomas was interviewed on the eve of sailing for Australia where he is to attend a series of conferences. Architects seem to have caught the big travel bug lately. J. Murray Easton has gone to America, Hugh Casson has gone to Cairo but will be back before you read this, R. E. Enthoven and Wells Coates recently attended a conference on film technology in Italy, Neville Conder spent last week in Johannesburg but is home now, Anthony Chitty and Godfrey Samuel have just returned from the I.U.A. congress in Morocco. And I? Well, someone has to stay at home and do the work.

DESIGN REVIEW

The general public visiting the South Bank Exhibition may have been puzzled to find a place underneath the arches which always seemed to be closed. Speaking as a member of the general public, I was: However, by learning the magic word I did manage to get inside and see Design Review for myself. It was a huge pictorial reference library divided up into sections according to industries. The library consisted of pictures of some 20,000 well designed objects. Such a library is of great use to industrialists and buyers and it is good news to hear that Design Review is to open again at the Councils headquarters. Reorganization will take some time and meanwhile the Council's photographic library can be consulted.

WANTED

My life needs reorganizing. My house is architecturally unsatisfying, and inconveniently situated and sited. It is too far from the country and not near enough to London. I do not want to stand in London Transport all the way

to the office, I do not want to spend three hours a day on British Railways. I want the sort of house that never reaches the agent's hands. Some architecture, with spaciousness, main, or nearly, services, four bed, room for a small office, a large garage, small garden and a reasonable absence of dry rot and damp. The price, too, is a consideration but that is always open to negotiation. Will some kind person help ageing architectural columnist?

WASTE IN THE U.S. BUILDING INDUSTRY

The September issue of *The Magazine of Building* (Arch Forum) points out that American defence agencies are at last acting on recommendations made at "round-tables" organized by the paper. The main argument of the recommendations was that it would be better to stop waste of materials and to allow as much building as possible, than to reduce the volume of construction while allowing needless waste of materials to continue. The greatest single cause of waste is stated to be the chaos of local building codes. Standard national codes exist and should be adopted. Modular co-ordination on the 4in module is recommended and it is interesting to note that the Bureau of Yards and Docks of the U.S. Navy heartily endorses this principle. Instructions have been given that all personnel engaged in the design, planning, or procurement of materials for Navy construction to co-operate to the fullest extent. This looks slightly ambiguous to me but the *Magazine of Buildings* takes it to mean that modular co-ordination will be used.

Site welding is at present forbidden by many local codes although the experts claim that its use would reduce steel consumption by 10 per cent. N.P.A. (National Production Authority) has asked local authorities to accept standards which already agree to site welding and has further asked designers to recognize that "in structural steel design appreciable tonnage savings are often possible through welding and arranging for continuity of design."

TOWN PLANNING AND ARCHITECTURE FOR DEFENCE IN THE U.S.

We hear a good deal about rearmament in this country but apart from difficulties in obtaining materials and generally rising prices we know very little about it. It seems to be quite different in America where a whole issue of *Progressive Architecture* has recently been devoted to town planning and architecture under the shadow of the atomic bomb, and a large part of an issue of the *Architectural Record* has been devoted to military buildings. *Progressive Architecture* had a number of short articles on the pros and cons of dispersal, concentration, whether one should take any notice of atomic warfare, and so on. It made gloomy reading. Jacqueline Tyrwhitt wrote against.

American military architecture as shown in the *Architectural Record* is not a lot better than ours but there seems to be more of it. That terrifying building the Pentagon is to be emulated by a new building, to be known as the Army Finance Centre, covering a site 1,000ft by 600ft. It will have a total floor area of more than one and a half million square feet. Its canteen will seat 2,000 at a time, its bus station will cover 6,000 sq ft and will provide covered access to the building. T. E. Lawrence's system of paying his troops from a bag of sovereigns carried on his camel was much simpler than all this.

ABNER

N E W S O F T H E W E E K

R.I.B.A. Library Group

At a well-attended meeting of the R.I.B.A. Library Group, held at 66, Portland Place, on Monday, October 8th, Mr. A. S. G. Butler, F.R.I.B.A., who collaborated with Mr. Christopher Hussey, Hon. A.R.I.B.A., to produce the recently published Lutyens Memorial Volumes, gave an informed talk on Sir Edwin Lutyens and his approach to architecture. Mr. Hussey and Sir Edwin's son, Mr. Robert Lutyens, were present and took part in the discussion.

"The Library Group, which was formed in 1947 and usually meets monthly, provides members of the R.I.B.A. and users of its library with facilities for meeting others of like interest to study collections of books, engravings and drawings possessed by the Institute. The Honorary Secretary is Mr. Kenneth S. Mills, A.R.I.B.A., of 110, Kingswood Road, Goodmayes, Essex.

The Future of the South Bank

The following statement on the future of the South Bank was issued last week by the General Purposes Committee of the L.C.C.:-

"After the closing of the South Bank Exhibition, the way is open to the next stage of South Bank permanent redevelopment along the general lines envisaged by the County Council when considering the County of London Plan and now being reviewed as the Council considers the draft Development Plan to be submitted shortly to the Ministry of Local Government and Planning. It is the Council's desire, so far as economic conditions permit, to take full advantage of any amenities created by the Festival on the exhibition site and of the public interest and support which has been aroused in the better use of the South Bank as a whole.

"The Council's scheme provides for full public enjoyment of the new embankment, and the views of London which it affords, by the creation of a riverside garden along the present exhibition frontage from the County Hall to Waterloo Bridge. It is the Council's intention that this garden shall form a memorial to all those people of London who lost their lives in the Second World War. The Skylon will be removed during the coming winter, together with such other features along this riverside strip as are not required to be kept as amenities, and, on completion of this work, the London County Council will make such temporary arrangements as are necessary to enable the public to have access to it.

"Behind the riverside garden the section between the County Hall and Hungerford Bridge fronting York Road, is intended ultimately to be

occupied by new Government offices, including extensive conference halls which will be available to remedy the serious shortage of conference facilities by which London is handicapped as compared with leading cities in other countries.

"The section of the site between Hungerford Bridge and Waterloo Bridge is partly occupied by the permanent Royal Festival Hall which is to be completed as soon as conditions permit by constructing at the rear the small theatre, orchestral practice room, art gallery and administrative offices included in the scheme as approved.

"On the adjoining site, immediately between the Royal Festival Hall and Waterloo Bridge, Her Majesty The Queen, on July 13, 1951, laid the foundation stone of the National Shakespeare Memorial Theatre for which the Council in 1945 agreed to provide a site on the South Bank.

"As regards the part of the exhibition site not to be redeveloped for some time owing to economic restrictions, mainly lying between the Royal Festival Hall and the new Waterloo Road/York Road roundabout, negotiations are in progress as to the practicability of retaining until permanent redevelopment necessitates their removal, the Lion and Unicorn Pavilion, the administration buildings, the Telecinema, and possibly other exhibition buildings. Garden features and other amenities will be retained so far as practicable to preserve an attractive appearance pending redevelopment. Such a scheme would fit in admirably with the Council's plans for the ultimate redevelopment of the whole of the South Bank down to Blackfriars Bridge, and beyond.

"Immediately beyond Waterloo Bridge is a further area ripe for redevelopment in the ownership partly of the Council and partly of the Duchy of Cornwall. Negotiations have been proceeding for some time for the acquisition of this key site to accommodate the British Science Centre, a decision to establish which was announced in Parliament by the then Lord President and the then Lord Privy Seal on November 21, 1950. It is hoped that a 'New Burlington House' on the river front facing Somerset House shall form the new home of the Royal Society and fifteen other leading scientific learned societies. Other buildings will house Government scientific organizations, including the Patent Office and its library, which will be modernized and extended as a first-rate Central Reference Library of Science and Technology. Such a Centre would be a valuable addition to the South Bank and would greatly improve facilities for, and contacts between, scientists and users of science, both nationally and internationally.

"It must be emphasized that the

rate of fulfilment of these permanent schemes is dependent on the international situation and on economic and financial conditions, but every effort will be made to press on with them as rapidly as circumstances permit, and, in the meantime, to ensure that the impetus which the Exhibition has given to South Bank redevelopment and the improvement in the facilities and amenities of this area are maintained."

ANNOUNCEMENTS

Frederick Gibberd wishes to thank those who replied to his advertisement of September 20. The vacancies have now been filled, and he regrets that it has not been possible to reply individually.

The official report of the 8th International Congress of Modern Architecture (C.I.A.M. 8) held at Hoddesdon, Hertfordshire, this year is now obtainable from the Hon. Secretary, M.A.R.S. Group, 9, Conduit Street, London, W.1, price 25s, postage 9d.

COMING EVENTS

Royal Institute of British Architects.

Oct. 23, 6 p.m. Talk by J. G. Wilson, A.R.I.B.A., on "Concrete Finishes," at 66, Portland Place, W.1.

Institute of Quantity Surveyors. London Branch Junior Section.

Oct. 24, 6.45 p.m. Lecture by Arthur J. Willis, F.R.I.C.S., on "The Quantity Surveyor and the Building Contract" in "The Lecture Hall" of the Seymour Hall, Shouldham St., W.1.

Institute of Landscape Architects.

Oct. 18, 6 p.m. General Meeting, The Housing Centre, 13, Suffolk St., S.W.1. Presidential Address by Miss Brenda Colvin.

Students Planning Group.

Oct. 25, 6.15 p.m. Discussion on "Is Planning Incompatible with Democracy," 28, King St., Covent Garden, W.C.2.

Institution of Structural Engineers.

Oct. 24, 5.55 p.m. Ordinary General Meeting for election of members, followed by a paper on "Some New Developments in Prestressed Concrete," by Dr. P. Abeles, 11, Upper Belgrave St., S.W.1.

OBITUARY

Neave.—On Oct. 6 at Gordon Hospital, London, Raymond Frank Neave, A.R.I.B.A., of Woodbury, Lingfield, Surrey.

CORRECTION

In last week's issue there was an illustration of a building near Wishaw which was described as a new factory for Smith's English Clocks Ltd. We have since been informed that this factory was built by Scottish Industrial Estates Ltd., it was not designed specifically for Smith's English Clocks Ltd. but was leased to them. The architect, Mr. L. W. Hutson is consultant to Scottish Industrial Estates Ltd.

A. B. S.

Activities of the Architects' Benevolent Society

The Centenary Appeal fund of the Architects' Benevolent Society has started well, with more than £7,000 subscribed towards the project for building old people's homes. To add to this sum the Society are organizing three events in the near future. Thanks to the courtesy of Mr. Hugh Montgomery, Hon. A.R.I.B.A., they will have a stand at the forthcoming Building Exhibition; they are to hold a repeat of last year's most successful ball at the Dorchester Hotel and they are to hold a "light-hearted architectural competition" from which members of the profession may obtain some amusement for the expenditure of a "non-returnable deposit" for the conditions of competition.

The A.B.S. at the Building Exhibition

This year the Committee decided not to hold a tombola as in previous years. Instead, pictures and specially designed Christmas cards will be on sale. Architects and students are asked to present pictures; oil-paintings, watercolours, line drawings, etchings, drypoints, etc., framed or unframed, will be welcome. Those willing to present pictures are asked to notify the Secretary of the A.B.S. at 66, Portland Place, W.1, as soon as possible so that arrangements can be made for collection. Already several architects have presented pictures and it is hoped that this appeal will bring in many more.

Four architects have kindly designed Christmas cards. These are Mr. E. B. Musman, F.R.I.B.A., Mr. Frank Hoar, F.R.I.B.A. (*Acanthus* of PUNCH), Miss Norah Glover, A.R.I.B.A., and Mr. Peter Shephard, A.R.I.B.A. The cards will be sold at normal prices and with envelopes. It is hoped that every architect visiting the A.B.S. stand will purchase some, because each sale means a small sum added to the A.B.S. funds.

The Annual Ball

Last year the tickets for the Centenary Ball were sold out more than a month before the event. So great was the success of the Ball that the Committee immediately booked a room at the Dorchester Hotel to hold 900 persons and re-engaged Mr. Charles Ernesco's No. 1 Band.

The tickets are £2 2s each and include a sit-down supper similar to the very good one provided last year. The successful sideshows will be repeated, the students of the Regent Street Polytechnic School of Architecture having again offered their services in making the necessary stands and helping to run the shows. The students of the Architectural Association School of Architecture have also been asked to stage a cabaret. Finally, the Ball will be the occasion for the concluding stages of the Architectural Competition.

The Architectural Competition

The subject is a "Monument to Commemorate the Passing of the Good Old Days of Architecture" which, to quote the Conditions of Competition, "Will on no account be erected on a site in the middle of Portland Place, opposite the offices of the Architects' Registration Council of the United Kingdom." Competitors may disregard all building acts, by-laws and regulations "likely to restrict the free play of imaginative architectural design."

Mr. H. S. Goodhart-Rendel, Past President, R.I.B.A., Mr. Osbert Lancaster, Hon. A.R.I.B.A., and Mr. John Summerson, F.S.A., A.R.I.B.A., have kindly agreed to act as honorary assessors. They will select seven designs in order of merit which they consider to be "the most appropriately undesirable" and place their award in a sealed envelope which will be opened by the President of the Society at the Ball. The first premium is £10, the second £5, the third £2 10s, and the authors of the other selected designs will receive £1 each.

Architects, students and "others" may enter for the competition on payment of "a minimum non-returnable deposit of ten shillings to the Centenary Appeal Fund." Payment entitles the donor to receive a copy of the competition conditions and an official envelope in which he is to place his name and address when submitting his design. All he has to provide is a single drawing "not larger than half imperial or smaller than quarto."

The Competition will be linked with a sideshow at the Annual Ball. The seven selected designs will be on view there and persons attending the Ball will be encouraged, at a charge of five shillings each, to make their own individual awards, placing the designs in the order of merit. Those whose judgment is found to be the same as that of the Assessors, or closest to it, will receive prizes after the opening of the Assessors' award by the President, which will take place at midnight.

This light-hearted Competition is an opportunity for all those who fancy their powers of design and their draughtsmanship (and what architect or student does not?) to contribute to the Centenary Appeal Fund and to have a little quiet fun on their own account. The Committee hope to receive an enormous number of designs because, apart from the profession enjoying a private and purely architectural joke, each application for a copy of the conditions will mean that ten shillings will be added to the Centenary Appeal Fund.

The President's Christmas Appeal

These activities are to raise money to swell the Centenary Appeal Fund. There remain the day-to-day benefactions of the Society, the care of architects, students, and the widows and children of architects who are suffering from old age, hard times or incapacity. This essential work must not be overlooked in the effort to in-

crease the Centenary Appeal Fund. Later this year the President will issue his Christmas Appeal to all architects and students, and the Society hope that the excellent results achieved in past years will be exceeded.

CORRESPONDENCE

Frank Lloyd Wright Exhibition

To the Editor of A. & B. N.

Sir,—I should like to support Abner's suggestion that the Frank Lloyd Wright Exhibition at present in Europe should be shown in London. I saw this recently in Italy and it was an outstanding architectural experience—even in Florence—but shown in an area less than the whole floor devoted to it in the Strozzi Palace it would lose considerably in effect. The space of the exhibition in relation to the many large photographs was partly responsible for the stimulating impact of this unfolding of Wright's achievement as an artist.

Could not the I.C.A., M.A.R.S., and the R.I.B.A. jointly sponsor the exhibition or, at least, encourage other sponsors. Architectural exhibitions such as this are rare and it might be followed by other similar assessments of individual architect's work. Have there ever been in England public exhibitions of the work of, say, Asplund, Aalto, Van der Röhé, Le Corbusier or Gropius. There have been such in Europe, why not here?

I am, etc.,

TREVOR DANNATT.

Law Report

Judgment for the plaintiff, with costs, was entered by Mr. Justice Donovan in the King's Bench Division on October 12, in an action brought by Mr. Alphonse Albert Van Nuffelen, registered architect, of Golden Yard, Hampstead, N.W., against Mr. Osborne Howard Leicester, F.R.I.B.A., of Bloomsbury Square, Bloomsbury, W.C., for a declaration that moneys were owing to him by way of remuneration, and for an account to be taken.

Giving judgment, Mr. Justice Donovan said the plaintiff contended that in November, 1947, it was agreed that he should assist as an architect in the defendant's practice.

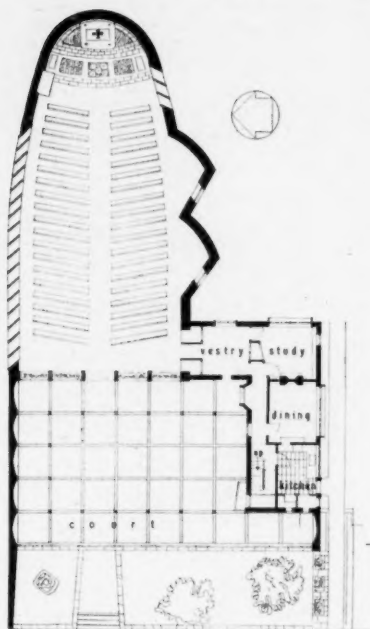
He was to receive one-fifth of all gross fees received for work on which he assisted, together with travelling and other expenses.

The defendant denied such an agreement, and said the plaintiff should receive by way of remuneration £15 a week. Up to April, 1950, when Mr. Leicester gave the plaintiff written notice, Mr. Van Nuffelen had received £2,490, and that nothing was owing.

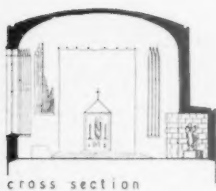
His lordship made a declaration that Mr. Van Nuffelen was entitled to remuneration on the basis he claimed, and ordered that an account be taken accordingly.

THE CHURCH OF ST. NINIAN AND ST. MARTIN

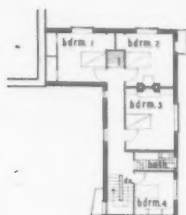
architect: BASIL SPENCE, F.R.I.B.A.



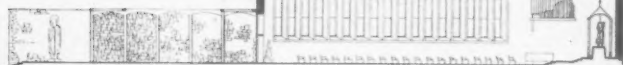
plan at ground floor



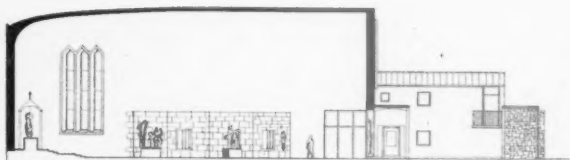
cross section



first floor plan



section looking north

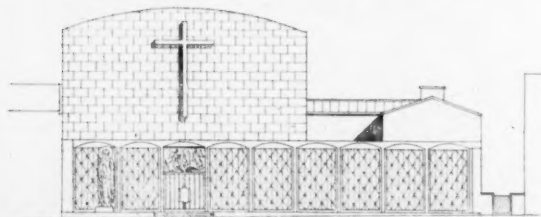


section looking south

scale 0 5 10 20 30 40 50 feet

THE commission for this proposed Roman Catholic church at Whithorn, Scotland, arrived when the scheme for Coventry Cathedral had been worked out. As nothing was expected from the Coventry Competition, it was thought that this small church could embody some of the ideas.

Behind the altar is a large tapestry, the windows shine towards the altar, and there is something similar in the way of the open cloister with the porch at Coventry.



The West front. Scale $\frac{1}{4}$ " = 1 ft.

Though these ideas applied, the original idea for this church came from the story of St. Ninian's arrival on the shores of Scotland, as his first church was a cave not very far from the site of the new church. The cave formed the basis of this scheme as the nave and sanctuary are built in the shape of a cave.

In order to stress the form of the early sea church, the courtyard will be paved with stones washed by the sea and gathered from the beach.

To emphasize permanence, the West wall is of granite with an oak cross on it; the rest of the church is constructed of brick, cement rendered and white-washed. Cloisters and window dressings are to be of concrete.

The Priest's house is normal construction of brick, with timber roof and metal windows.



New Motor Showroom

HIGH STREET KENSINGTON

architect : MICHAEL EGAN, A.R.I.B.A.

THE showroom serves as display space for a Car Hire Service and large garage in Logan Place. A striking effect was required within the small area available in order to attract overseas customers. The ground floor space available was only 35ft wide x 33ft deep although a basement reached by hydraulic lift extends 85ft deep.



Ground floor showroom.

NEW MOTOR SHOWROOM

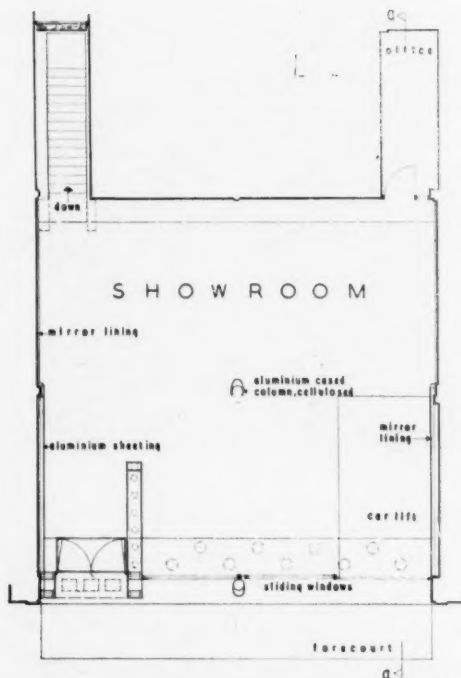
The Architect's intention was to display cars clearly and to give the greatest impression of scale to the small space available.

With this object in view the side walls are ribbed and made to read as a frame to the two dimensional front, whilst mirrors on the rear portions of these walls make the showroom appear wider at the back. Three large plate-glass doors form the front and are placed independently of the central support to obtain better proportions. The frame at the head of the doors is recessed into the soffit. The side entrance is screened by a showcase to enhance the size of the main space and the smaller showcases help to give scale.

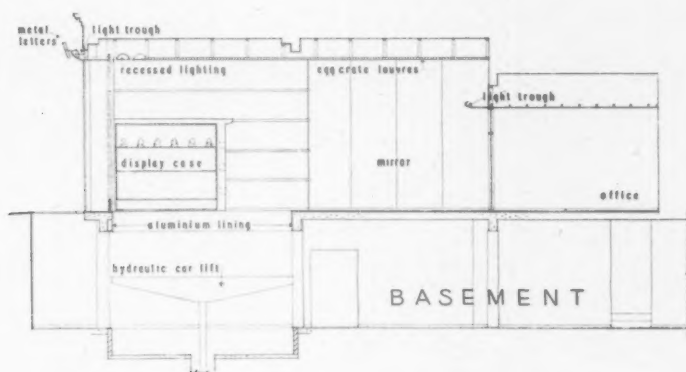
Materials and Finishes

Front: Soffit and lighting trough are in aluminium. The built-up letters are in aluminium sprayed on the returns, while the faces are stainless steel recessed to take blue Neon lighting. The soffit extends into the showroom and is pierced with louvred tungsten spotlights. Showcase and entrance doors are in stainless steel and aluminium. Floor: pale green terrazzo tiles treated with tung oil to prevent oil staining. Side walls: mirrored or aluminium sheeting and ribbing drawn on timber, sprayed in polychromatic "Belco" metallichrome fawn finish. Columns: cased in aluminium, similarly finished. Ceiling: 3 x 3in aluminium egg crating hiding "hot" cathode fluorescent tubes. Rear wall: plastic paint, sprayed white and off-white finish.

The General Contractors were Hickman Ltd.

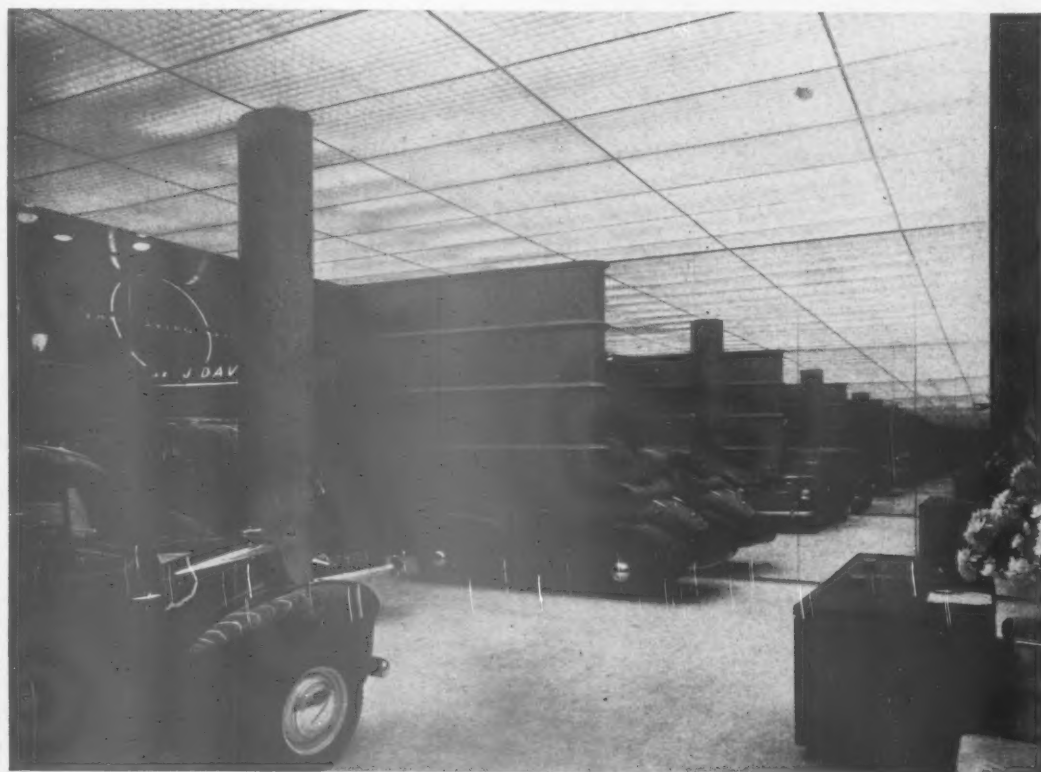


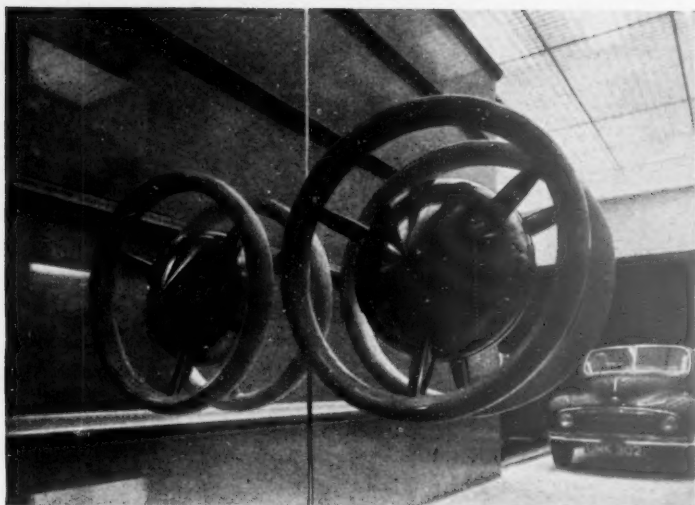
ground floor plan



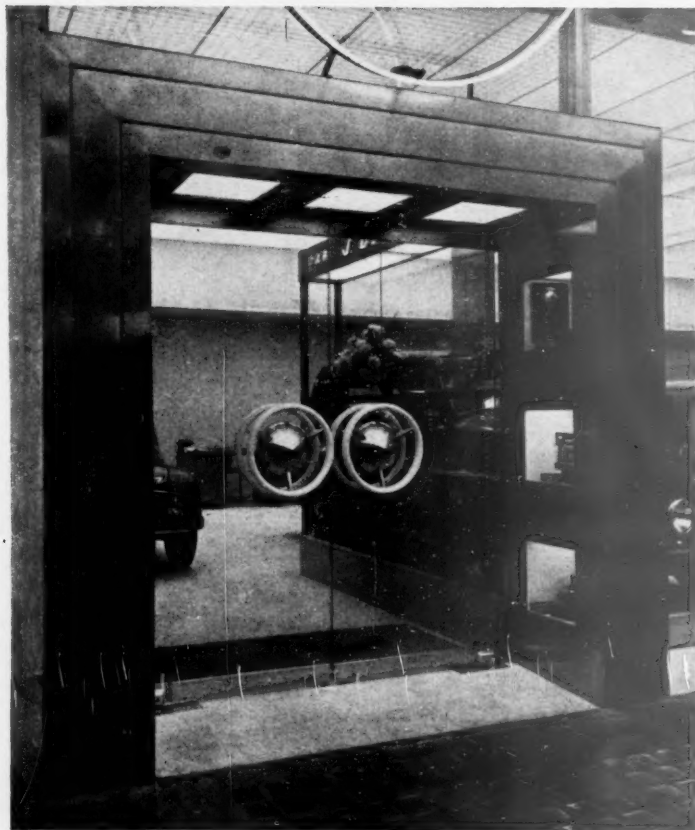
section

scale 0 1 2 3 4 5 10 15 20 25 30 feet

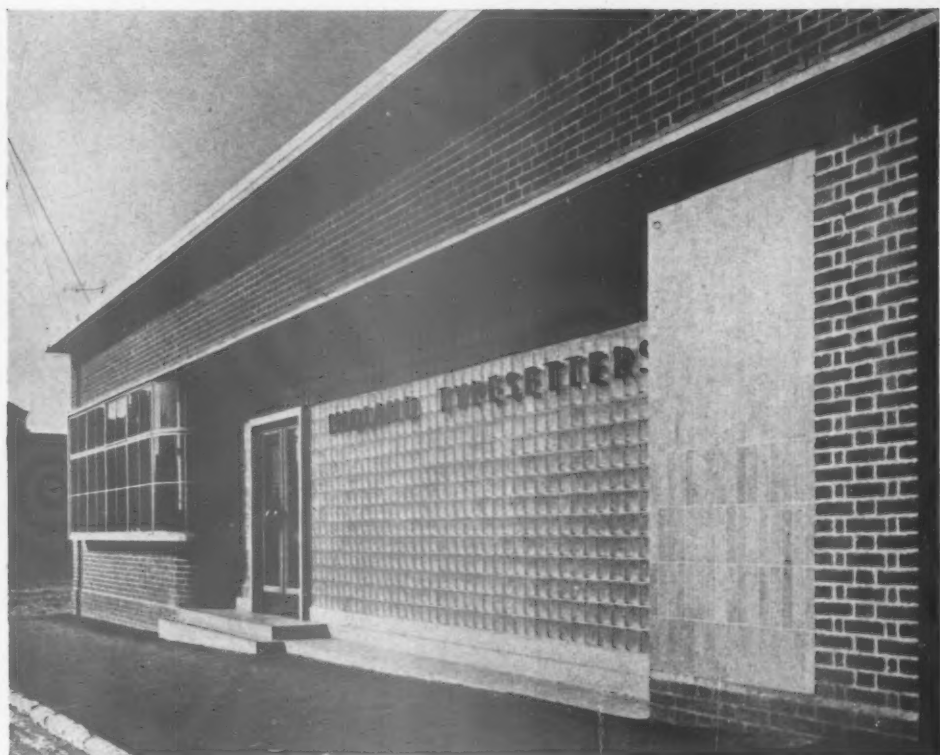




The stainless steel and aluminium side entrance doors and handles. The spinnings to the handles are of stainless steel with tube surround sprayed in white cellulose.



NEW MOTOR
SHOW ROOM



New Factory for Midland Typesetters, Birmingham

architect: LEONARD J. MULTON, F.R.I.B.A.

THIS factory is used for the setting of type for the Printing Trade. It was necessary to design a building giving a high degree of distributed natural lighting but avoiding conditions which would have produced an uncomfortable amount of undiluted sunlight in the summer months. The problem was solved by means of high Clerestory lighting on the south side and glazed walls on the west and north sides. Top lighting is provided by Monitor lights running north-south the full width of the main shop. The keyboard room, situated on the east side, is lighted by a wall of glass bricks and top lighting from a lens-concrete lantern. Artificial lighting is from fluorescent tubes placed at low level, 7ft 6in above the floor.

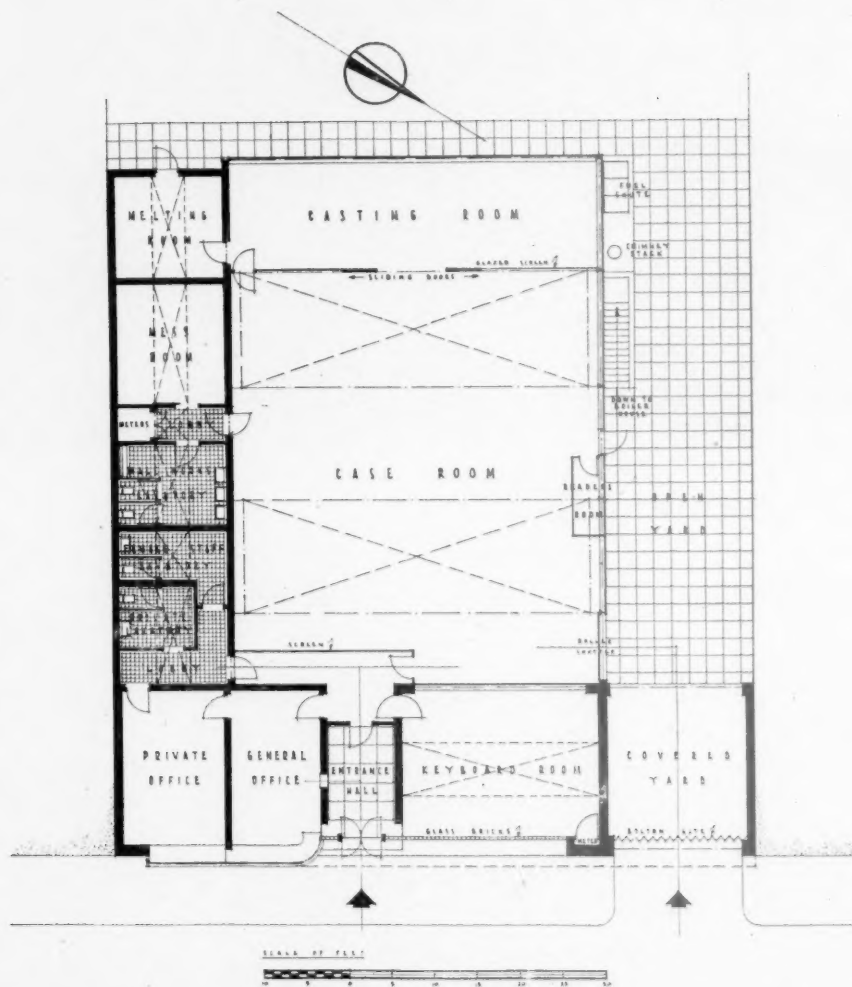
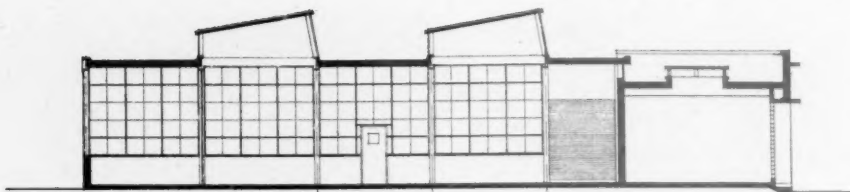
The front portion of the factory is constructed of load-bearing brick walls with light buff machine-made sand-faced facings and precast Portland Stone dressings. At the termination of the glass brick wall there is a panel of orange-faience tiles. Terrazzo, the colour of Hopton Wood Stone, is used for the steps and entrance door frame. The doors are mahogany with sycamore mouldings, wax polished in a natural shade; the door handles are mahogany spheres with silver-bronze mountings. The sign lettering is vitreous-enamelled lead-coated steel, each letter fixed by cramps into the joints between the glass bricks.

The rear portion of the building is steel framed, the flat concrete unit roof being carried on beams running parallel to the Monitor lights. These Monitor lights have portal frames roofed with Ruberoid Stelflor Decking, the underside of which is lined with insulation board which presents a flush surface and prevents heat losses.

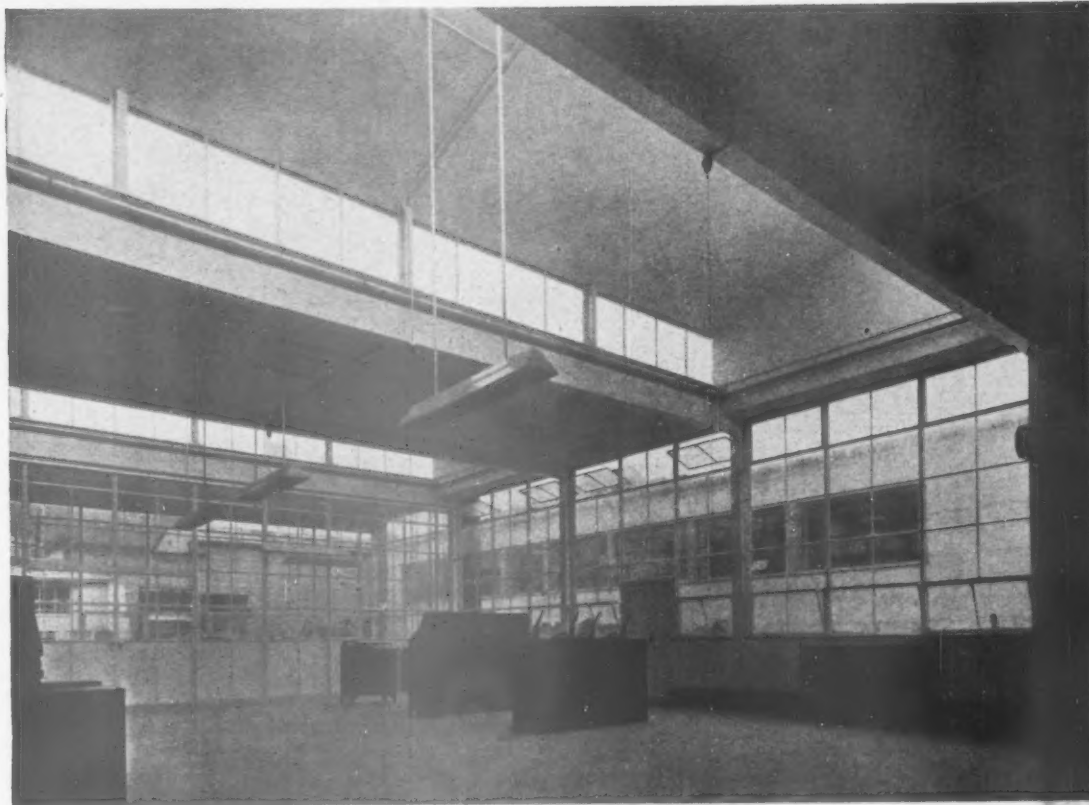
The factory floor space was planned and designed to suit the processes and machines used, and an accurate plant layout was prepared before the final working drawings were completed. This enabled all services, consisting of gas, water, electricity and compressed air, to be taken to each machine in floor ducts, thus leaving the floor space unimpeded.

Lavatories are situated on the north side of the building and are constructed of brickwork with flat concrete roofs at a height immediately below the Clerestory lighting. These lavatories have terrazzo w.c. divisions and tiled walls and floors.

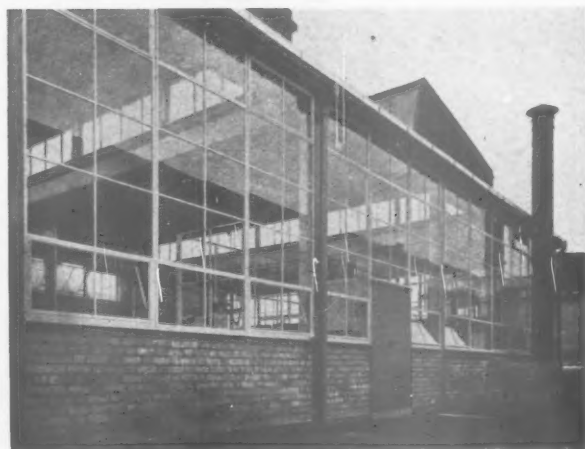
Externally all metal windows are painted off-white. The structural steelwork, doors and roller shutter orange. The folding gate, closing the entrance to the yard, is emerald green. Internally all surfaces are enamelled off-white.



MIDLAND TYPESETTERS NEW FACTORY



General view of the Case Room looking towards the offices



Architect : Leonard J. Multon.

Quantity Surveyors : Robottom & Berry.

General Contractor : Sappcote & Sons, Ltd.

SUB-CONTRACTORS AND SUPPLIERS

Structural Steelwork : Steelwork Constructors (1946), Ltd.

Steel Reinforcement : Twisteel, Ltd.

Concrete Roof Slabs : Concrete, Ltd.

Monitor Light Roofs : Ruberoid Co., Ltd.

Patent Glazing : Standard Patent Glazing Co., Ltd.

Metal Windows : John Gibbs, Ltd.

Facing Bricks : Blockleys, Ltd.

Artificial Stonework : Empire Stone Co., Ltd.

Architectural Metal Work : Craftmetals, Ltd.

Floors—Grane : Empire Stone Co., Ltd.

Floors—Wood Block : Hewetsons, Ltd.

Electrical Installation : Electra (B'ham, 1935), Ltd.

Terrazzo Work : Roman Mosaic Co.

Ironmongery and Special Door Handles : K. S. Neale.

Tile Fixing : Craven Dunnill & Co., Ltd.

Faience tile suppliers : Carter & Co., Poole.

Heating Installation : Norris Warming Co., Ltd.

Yard Gate : Bolton Gate Co., Ltd.

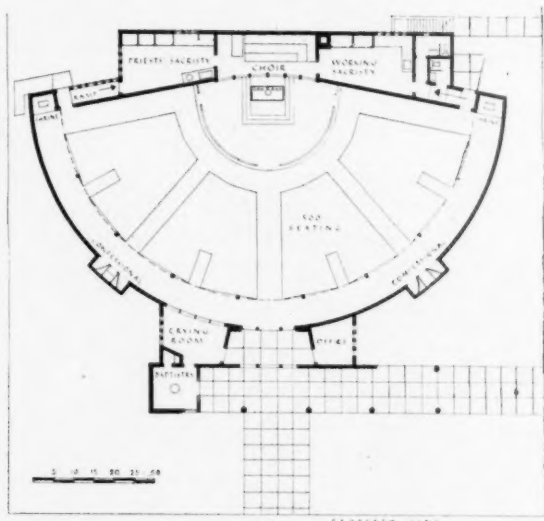
Roller Shutters : Mather & Platt, Ltd.

Sanitary Goods : H. O. Bennion.

Asphalting : Birmingham Asphalte & Paving Co., Ltd.

Cret-o-lux lantern light : Haywards, Ltd.

Church in Seattle



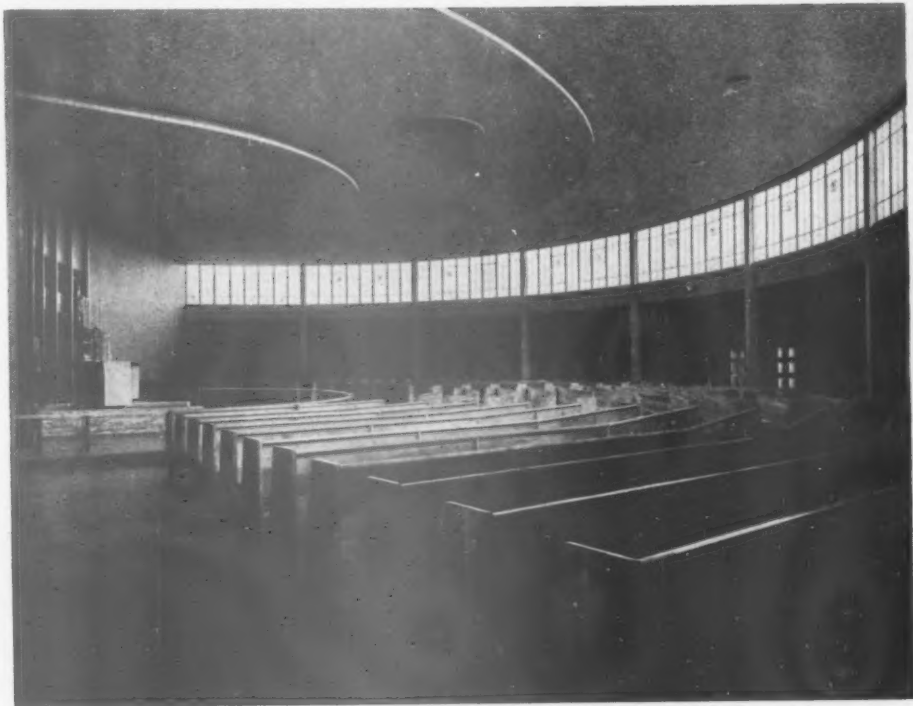
ARCHITECT: PAUL THIRY

THE Church of Christ the King, Seattle, Wash., is designed to seat 500. A semi-circular plan has been adopted which ensures that no worshipper is farther than 50 feet from the altar.

The confessionals appear as projections on the exterior. An original feature is the "crying room," where babies can be taken to Mass and acoustically isolated.

The high clerestory window which follows the semi-circular plan lights the altar on three sides.

Construction is of reinforced concrete and radiant coils in the floor heat the church.



Above : General view of the interior. The altar and steps are of marble, the floor is concrete, stained moss green, the walls are concrete finished smooth and painted. The clerestory windows are glazed with cathedral glass with decorative lead inserts.



Prestressed Concrete road and foot bridges for Hants County Council

HAMPSHIRE, like many other English counties which are largely rural in character, has many small rivers and streams which are bridged at numerous points. As part of his bridge maintenance programme the County Engineer decided to use prestressed concrete for the reconstruction of several of these bridges.

So far two road and four foot bridges have been completed. Both the road bridges have a span of 34ft and consist of nine precast beams manufactured and post-tensioned on the Freyssinet system in a precast concrete works. Each beam is 1ft 6in wide, 1ft deep and weighs 3½ tons.

The beams were transported to the site by road and were off-loaded with a five-ton mobile crane. Three beams were hauled across the existing bridge which was then demolished. The remaining beams were then pulled across over those already in position and all the beams were lowered by jacks on to the reinforced concrete pile trestle abutments.

The longitudinal joints between the beams were caulked with a stiff cement mortar and the beams were tied together by transverse prestressing on the Freyssinet system.

The exposed portions of the parapet beams were bush-hammered and the parapet itself is of simple oiled oak fencing. The anticipated economy in construction was proved in practice, due principally to the following factors:—

1. The light weight and shallow depth of the deck which allowed the abutments to be set back on the bank in the form of simple piled trestles, and eliminated the need for in situ mass concrete abutments involving water work.
2. The absence of falsework and temporary staging.
3. The proportionately large amount of precasting which reduced site construction time and the consequent transport of labour—an important factor in outlying districts.

The same system is being used for other road bridges now under construction within the county.

The foot bridges vary in span between 34ft and 43ft and consist of two beams laid side by side. Each beam is made up of two parallel rows of hollow precast concrete units 4ft long with a prestressing cable running between the rows. The ends of the units in each line bear on each other through a solid concrete diaphragm. Every diaphragm in one line of units occurs opposite



Above, top: road bridge in the New Forest near Lyndhurst; and foot bridge at Ovington, near Winchester. Left: the Ovington bridge under construction.

a diaphragm in the other line. The diaphragms were therefore precast in pairs and connected by a mild steel bar which locates the prestressing cable in its proper position between the rows of units.

The cables are anchored at the ends of the beams in precast concrete blocks in which the female Freyssinet cones were cast.

Before stressing was carried out the lateral joints between the units and the diaphragms and between the units and the anchorage blocks were filled with a stiff cement grout and the cableway and the longitudinal joint between the beams were similarly treated after stressing.

Stressing was carried out using the Freyssinet jack from one end only. In the 43ft span bridges two cables were used in each beam.

The exposed sides of the units were wire brushed as soon as the moulds were stripped to give an exposed aggregate finish.

The oiled oak fencing was bolted to alternate diaphragm units with bronze studs and bushes.

By adopting the general principle of using small factory-made precast units, the difficulty of transporting materials to inaccessible sites was largely overcome and site labour was reduced to a minimum.

COUNTY ENGINEER AND SURVEYOR:
BRIGADIER A. C. HUGHES.
COUNTY BRIDGE ENGINEER: E. W. GIFFORD B.Sc. A.M.I.C.E.

Road Bridges
Contractors: Nettans Ltd., Christchurch.
Units manufactured by: Liverpool Artificial Stone Co., Ltd., Barmansley.

Foot Bridges
Contractors: J. J. Udalls (Building) Ltd., Southampton.
Units manufactured by: Devon Concrete Co., Ltd., Romsey.



TOWN & COUNTRY PLANNING ASSOCIATION CONFERENCE
LAND USES AND PLANNED USES

Extracts from the paper read by Professor WILLIAM HOLFORD at County Hall on October 4

DURING a good part of our lives we are being planned for, and thus we represent the consumer — the public. At other times, when we are engaged in production or management or research, or sitting on Councils, boards, committees, or working parties, we are more than likely to be affecting the future of other people's lives—in other words we are planners, in some degree, and in relation to some field of human activity.

Subject to this proviso—that we are all concerned in the matter in one way or another, and sometimes on both sides of the fence at once—I should say that the role of the planner as such is to represent the public interest. At least that is what the Planning Acts are continually saying about the Minister and his representatives, and the local Authorities and their officers.

Paradoxically the public—as such—take little interest in the national or even the local statistics of land use, or in overall budgets, estimates, densities and standards. These are not their job. They are concerned, individually, with their *private* interests, and collectively with certain broad policies which they firmly believe their elected representatives—the politicians—are defending, or at least maintaining.

Now the first phase of the Battle for Land in Britain was not in the least confined to the experts. It was really a battle between the prophets and the public. All through the nineteenth century, industrial prosperity and industrial waste walked hand in hand. The social prophets saw what the aftermath would be. They preached against the waste of land, the waste of resources, and most of all against the waste of lives—populous though the country was in comparison with the previous century.

The Second War focused public opinion on the matter to an extraordinary degree. Economic planning and military planning became more centralized, and the former had obviously come to stay. Property owning and property management—particularly in view of war damage and high taxation—lost much of their attraction. Tenant occupation, preferably at a controlled rent, became the most important thing. The smallness and vulnerability of these islands was a stark fact, apparent to everyone. Farming productivity was increased, and the War Agricultural Executive Committees came into being.

The Scott Committee published its report in 1942. The Ministry of Town and Country Planning was created in 1943, and thus began the administration of what is called "the New Planning System," which culminated in the Act of 1947 and the subsequent acquisition of Development Rights in land by the State.

Everything, in fact, seemed set for a democratic but effective control of land use in the public interest by the Minister and the 145 Planning Authorities of England and Wales. And thus the first phase in the Battle for Land drew to a close.

The second phase is, I have suggested, a battle between advisers—both administrative and technical. It is no longer a fight against sheer ignorance or apathy. Land that is now proposed to be alienated from agricultural use can only be so transferred with a knowledge of the facts and arguments, *pro* and *con*.

The case for the reservation of land against building development has been put fully, and with force, by Professor Stamp, who was Vice-Chairman of the Scott Committee, and is still Adviser on Land Utilization to the Ministry of Agriculture. The case for development is being put forward almost daily, but no longer by the speculative builder. It is pressed by Government Departments, by Housing and Education Authorities, by the National Boards and Commissions, by Statutory undertakers, by New Town Corporations, by mineral working firms, and by industry—both independent and sponsored.

In a recent PEP Broadsheet entitled "Land Use Planning: a Programme for Social Studies," the following comment occurs:—

"There have been successive movements to improve sanitation and public health, housing conditions and communal facilities, to promote religious and moral welfare, and to introduce beauty into our towns and villages. Then it was recognized that in order to achieve these different purposes, they had all to be combined: hence planning was advocated. But, of course, all the separate movements still have their partisans, and their claims conflict. And since a truly combined operation has to have a programme, it is not sufficient to know that all the different needs are interrelated; their relative importance has to be assessed."

Now this definition of priority needs is what I have called the second phase of the Land Battle. And there are two special difficulties about bringing it to a conclusion.

One is that despite the New Planning System we are still a long way from possessing the information, or setting up the administrative machinery, to make and abide by a series of unpopular decisions on land-use priorities.

I do not hold Utopian views about national planning; and I don't complain of the fact that it is not yet possible for Whitehall to make a scientific schedule of the amount and distribution of land to be allocated to every possible use throughout the country. But equally,

it is no use to argue as if this were actually happening, when it is not. All we know is that England and Wales have some 37 million acres for a population of 44 million people, which (with immigration) is still rising; that, of the total acreage some 24 million are in crops and grass—about half an acre of improved land per capita: that this produces a little over half of our food: and that there is an official agricultural expansion programme which has set a target for 1952 of an increase of 50 per cent over the 1938 level of production.

To reach this, greater production will be required from fewer acres. Comparatively, our yields are already high; but they would have to be higher still.

We also know that land is being lost for agriculture in England and Wales at the rate of at least 35,000 acres a year; and that rising standards and the defence programme are likely to increase this figure also.

Although we blink at the fact when it is stated in these uncompromising terms, we all have good reasons for putting forward particular cases for the further development of land or its reservation for other than agro-forestry purposes. These reasons include education, housing, recreation, factory building, road improvements, security measures, and many others.

Now we all know that until recently it was not thought worth while to spend £300 an acre on restoring ironstone workings when the resulting agricultural value would be less than £50 an acre. Until the Minister of Local Government and Planning took the job in hand there was no national contribution and no legal requirements for the reclamation of this natural asset—the land.

I know of industrialists who would not consider paying 6d a square foot extra for clearance and foundations on an otherwise suitable factory site (the total cost of construction being over £1 million), and who preferred to settle on virgin agricultural land instead. Economically they were of course quite justified as individuals; but the unrecognized public loss was considerable.

In the same way a housing authority or a New Town Corporation cannot look at houses which need 15 per cent or 20 per cent extra cost in construction and services on account of their being built on made-up land, or land liable to subsidence. These costs are reflected in rents. But if, for this reason, they are not passed on to the consumer today, then it is only too likely that other and more productive land will be used for the houses, and so the costs will be passed on to the consumers of tomorrow.

In repeating that the first and greatest difficulty is a lack of knowledge and of machinery, for the definition of priorities on a national or regional

basis, I am really saying that we are not yet in a position to plan a comprehensive programme, to provide funds where they are likely to do most good in the long run, and to offset this by the enforcement of unpopular restrictions in other cases.

The second difficulty is that whereas it might be possible to make an agricultural land budget (in the same way that a forestry budget has already been attempted), accurate estimates of urban land requirements cannot yet be made with even the broadest approach to accuracy.

We know next to nothing about the rates of obsolescence and of the measures that could be taken to slow down the processes of blight and decay and to prevent stagnation. We are only just beginning to study the multiple uses of urban land, the rationalization of expansion space for factories, the multi-purpose open space, the combination of school and civic auditoria—gymnasias—parking places.

On the other hand, we have planned —(and I think quite rightly) for maximum densities, for limiting floor space indices in central areas, for increases in the scale of recreational open spaces of all kinds. We have entered the "service" phase of industrialization, with its accent on the social and welfare aspects of production.

Colin Clark pointed out many years ago that the great cities, even those which grew to importance originally as centres of secondary or manufacturing industry, are becoming more and more the centres of tertiary or service industry. This also includes commerce and the professions, transport and exchange, entertainment, building and education. Look at the school plan for London, and you will realize what an enormous area is planned for purely educational use, as compared with 50 years ago.

The significant point is that we plan for an ideal—so much land for a primary school, so many acres of playing fields for a secondary school, this amount for a county college, and that for a technical college. And then, faced with the actual and highly competitive land use in the built-up areas, we have to compromise and say, "we should like this much; but if we can't get it we will accept that much, and hope for the best."

I don't think there is yet any alternative way of proceeding. But it is quite clear that we are far from being able to calculate what our urban land requirements will be over the next 20 years or so.

I believe that it is only by tackling these difficulties; by thinking out ways of economizing and making-do, and yet hanging on to the general objective of a productive life in every sense of the word—urban or rural—that we shall improve our planning methods.



HERZL MEMORIAL COMPETITION

The competition, promoted by the Executive of the World Zionist Organisation was open to Jewish architects, sculptors and planners throughout the world, and was for the design of a Memorial to Dr. Theodor Herzl, founder of the Zionist Organisation. Sixty-three plans were submitted, 10 of which came from Britain. The 1st prize of £1,200 (Israeli), was awarded to Joseph Klarwein, of Jerusalem, whose design is illustrated on this page. The second prize of £900 went to J. Danziger and J. Shalgi. The designs were also purchased of the following:—B. Sumner Gruzen and Associates, New York; J. Sakarovitch, Paris; J. Weinraub and A. Mansfeld, Haifa; M. Hauser, Switzerland; Z. Rechter, Tel Aviv; O. Nitzchke, New York; Z. Bernstein; A. & H. Frankovski-Frankfurt and N. Solotov, all of Tel Aviv. An international jury of ten members made the awards, among whom was N. J. Aslan, A.R.I.B.A., Dipl. Arch. (L'pool), Dip.T.P. (Lond.), A.M.T.P.I. The winning plan has been accepted as a basis for execution. Minor adjustments in the memorial and major adjustments in the plan (approach, traffic-layout and parking places, etc) will be agreed upon between the author and a special committee to be appointed by the Executive of the Zionist Organisation.



CURRENT MARKET PRICES (LONDON)

(These prices apply to material purchased in the quantities named or otherwise as might be expected for a new building of medium size.)

AGGREGATES AND SAND

1½ inch—all in—ballast	20/-	Yard cube
1 inch do. do.	20/-	delivered
1 inch screened shingle	19/5	(in five yard
1 inch do. do.	19/5	loads or
1 inch granite chippings	55/-	more)
Sharp washed sand	19/5	
Pit sand	18/2	
Building sand	18/2	
Broken brick	17/6	
1½ inch shingle	19/5	
Cartage of muck	7/-	

CEMENTS, LIMES, PLASTERS, ETC.

London: Delivered centrally.		Per ton
CEMENTS—Portland (6 ton loads)		95/3
Do. (but 1 ton to 5 tons 19 cwt.)		100/3
Do.—Rapid hardening (6 ton loads)		103/3
Do.—Do. (but in 1 ton to 5 tons 19 cwt.)		108/3
Do.—"Aquacrete" (but in 1 ton to 5 tons 19 cwt.)		132/9
Do.—"417" or Polar (1 ton to 5 tons 19 cwt.)		132/9
Do.—White (1 ton lots)		252/9
Keenes Cement—pink—coarse (2 ton lots)		173/3
Do.—white—coarse (do.)		178/6

LIME—				
Hydrated	including	121/6	(1 ton loads)	deliv'd.
and	paper	119/6	(2/3 do.)	do.
Ground	bags	110/-	(4/5 do.)	do.
		109/-	(6 do.)	do.

PLASTER—	Price	unit	bags	
Sirapite, coarse	138/-	per ton	included	delivered
Do. finish	146/-	do.	do.	do.
Hardwall	141/6	do.	do.	do.
Plaster, pink coarse	134/3	do.	do.	do.
Do. white do.	142/-	do.	do.	do.
Lime and hair	78/-	per yard cube	—	do.
Plaster baseboard	2/4½	yard super (150 yds.)		do.

FIRECLAY—		
Stourbridge, loose (1 ton lots)	139/6	Ton delivered
Fire cement	10/3	1½ lbs.

BRICKS

BACKING BRICKS (In truck loads)—			
Flettons	100/9	per 1,000 delivered	
Do. Keyed	102/9	do.	
Do. bullnose	120/9	do.	
Blue wirecuts	415/-	do.	
White	136/-	do.	
Southwater engineering (No. 1)	300/-	do.	
Firebricks—2½ inch	60/3	per 100 delivered	
Do. —3 inch	70/9	do.	

STOCK BRICKS—			
Mild stocks	168/-	per 1,000 at Works	
Second, do.	193/-	do.	
First do.	203/-	do.	
Add for delivery—approx. 40/- per 1,000 in lorry loads.			

FACINGS—			
Rustics	125/9	per 1,000 delivered	
White	180/-	do.	
Blue pressed, 2½ in	460/-	do.	
Do. bullnose	474/-	do.	
Reds (Multi sand faced)	240/-	do.	
White glazed stretchers	1220/-	do.	
Do. headers	1205/-	do.	
Do. bullnose	1520/-	do.	
Do. double stretchers	1610/-	do.	
Do. double headers	1475/-	do.	
Breeze fixing bricks	20/3	per 100	
Fire tiles and lumps	28/-	foot cube	
Wall ties—8" × ½" × ½", black	66/3	per cwt.	
Do. but galvanized	100/-	do.	
Cement mortar (1:3) hand-made	80/-	yard cube	

BRICKLAYERS' SUNDRIES—

AIR BRICKS				
Iron	each	1/8	2/9	4/3
Galvanized do.	do.	3/1	5/2	8/-
Terra Cotta	do.	1/2	2/4	5/9
Chimney pots, Terra Cotta (11 to 25)	do.	1ft	2ft	3ft
		6/1	10/8	24/1
				41/8

PARTITIONS—

Per Yard super.	Blocks keyed for plastering.		
	Full load.	60 Yds super.	25 Yds super.
2in Solid clinker blocks	2/11½	3/5	4/5
3in do.	4/0½	4/6	6/-
3in Hollow clinker blocks	4/7	5/1	6/4
4in do.	6/3	7/2	8/7
2in Hollow clay blocks	3/11	5/2	5/8
3in do.	4/8	6/1	6/11
Half block extra on above	1/-	1/6	1/6
Smooth in lieu of keyed face, extra per side	2d	3d	3d

SINKS

Fireclay white glazed in and out—standard quality.			
24 × 18in 30 × 18in 30 × 20in			
London pattern, no overflow,			
6in deep	56/10	71/3	75/3
Belfast, plain edge, 10in deep	75/3	112/10	151/3

GAS FLUE BLOCKS—

	Single Flues.		Double Flues.
	5/5	10/-	
Backing blocks	5/5	10/-	per set of three
Straight do.	2/5	4/-	each
Cover do.	3/6	6/3	do.
Raking do. 45 deg.	5/2	8/4	do.
Do. 60 deg.	3/10	5/9	do.
Offset block	6/5	9/6	do.
Closer do.	2/5	4/-	do.
Do. flashing do.	2/-	3/1	do.
Straight flashing do.	2/-	3/1	do.
Terminal and cap	13/-	17/2	per set
Middle do.	12/9	16/5	do.
End do.	13/-	17/1	do.
Corbel block	8/8	16/7	each

DRAINAGE GOODS

GLAZED STONEWARE STANDARD LIST

	4in	6in	9in
Pipes 2 feet lengths	1/8	2/6	4/6
Bends	2/6	3/9	6/9
Single junctions	3/4	5/-	9/-
Gullies (ordinary)	6/3	6/10½	11/3
Ditto, reversible, trap	6/3	6/10½	—
Ditto, ditto, hopper	—	4/7	9/2
Black grid	—	1/3	2/6
Interceptor (ordinary)	17/6	22/6	37/6

Adjustment to Current Cost

"Best" pipes and fittings.	2 ton lots	Less than 2 ton lots.
	100 pieces	Under 100 pieces
	+47½%	+77½%
The following to be added is a separate and independent plusage to the appropriate quantity in respect of British Standard pipes +10%, "Best" tested ditto. +37½% and British Standard tested +47½%.		

IRON DRAINAGE GOODS—

Controlled maximum prices.			
Each	4in	6in	
Cast iron pipes, 9 feet long	52/-	77/9	
Do. 6 feet do.	38/2	60/10	
Do. 4 feet do.	30/4	48/6	
Do. 2 feet do.	18/8	29/2	
Short bend	12/-	24/11	
Junction	21/1	43/1	

CURRENT MARKET PRICES (Continued)

DRAINAGE GOODS—Continued

GULLEY PARTS—		4in	6in
Traps, high level, invert.	21/3	55/-	each
Inlet, bellmouth pattern	14/3	22/6	do.
Do. with one vertical branch	21/3	36/-	do.
Do. with two	46/6	81/-	do.
Sealed cover, with felt washer . . .	7/6	17/-	do.

RAINWATER SHOES—		4in	6in
With vertical inlet and rebated top .	25/-	66/-	each
Extension piece, 6in high	15/6	15/6	do.
Flat loose coated grating	3/-	3/-	do.
Loose solid coated cover	5/3	5/3	do.

MANHOLE CHANNELS, WHITE GLAZED—		4in	6in	9in
Each	12/2	16/3	27/-	
Straight, 2 feet long	20/3	20/3	28/4	
Taper, ditto	21/7	32/5	52/8	
Bends, main, half section	14/10	20/3	—	
Ditto, branch, ditto	20/3	29/9	—	
Ditto, ditto, three quarters, ditto .	18/11	32/5	—	
Junctions, single	25/8	44/7	—	
Ditto, double	—	—	—	

BROWN GLAZED CHANNELS—		4in	6in	9in
Based on standard list plus 77½% (less than 100 pieces)				
Half-round main channel (2ft long) .	2/3	3/4	6/-	
Extra for stop ends	2/3	3/4	6/-	
Extra for outlets	2/8	2/8	2/8	
Channel bends with played ends . .	6/8	10/-	—	
Three-quarter section	8/11	13/4	—	

MANHOLE COVERS—		Black
24" x 18in Light foot traffic	26/6	each
Do. Strong do.	42/6	do.
Do. Light car traffic	86/9	do.
Do. Road traffic	126/-	do.

SUNDRIES—		Galvanized
Manhole steps	7/5	each
4in Mica valve fresh air inlets . .	16/6	do.
(L.C.C.)	7/6	per lb.
Plumber's hemp	1/9½	do.
Gaskin, caulking	7d.	per ft run
Canvas backed hair felt, 4in wide . .	—	—

ROOFING MATERIALS

WELSH SLATES (delivered)—		Quantity
		2,000 to 4,999
Size in inches	per 1,000	per 100
22 x 11	1627/-	204/3
20 x 10	1055/-	132/6
18 x 10	725/-	91/-
16 x 8	624/-	78/6
14 x 9	294/-	36/9
14 x 4½	—	4/9

TILES (Brosley and Staffordshire)—		5,000 lots
10½" x 6½" Machine made	265/3	1017/6
Do., hand made, sand faced	272/7	37/9
Hips, valleys and angles	27/9	per dozen
Plain concrete tiles	160/9	Per 1,000

QUARRY TILES (delivered)—		14" x 8" x 8"
Plain	265/3	1017/6
Sheeting asbestos corrugated, 3in pitch .	7/6	per yard super
Do. 6in do.	8/-	do.
Sheeting iron galvanized corrugated . .	53/-	per cwt.
3½" Drive screws (galvanized)	10/6	gross

ASBESTOS RAINWATER GOODS—

		2½in	3in	4in	6in
Pipe in 6ft lengths	3/3½	3/11	5/5	11/2	yd. lineal
Do. in 3ft do.	4/6	5/3	7/4	15/-	each
Shoes	2/1	2/6	3/9	8/11	do.
Branches	3/9	4/6	6/3	15/6	do.
Bends	2/5	3/-	4/4	9/9	do.
Swannecks—6in projection	3/4	3/7	5/3	11/6	do.
Pipe clips	1/6	1/6	2/7	2/11	do.

ASBESTOS O.G. GUTTERS AND FITTINGS—

		4in	5in	6in	8in
In 6ft lengths	3/-	3/11	4/10	6/2	yd. lineal
In 3ft or 4ft do.	4/6	5/11	7/3	9/3	each
Angles and nozzles	2/6	3/4	3/11	5/1	do.
Stop ends	8d.	10d.	1/-	1/5	do.
Drop ends	2/2	2/5	3/-	4/1	do.
Union clips	1/3	1/9	2/1	2/6	do.

STONE

PER FOOT CUBE in random blocks not exceeding 20ft average in each.

BATH STONE F.O.R. SOUTH LAMBETH—

Monks Park 6/2. St. Aldhelm 7/2

STONE F.O.R. NINE ELMS—

Portland brown Whitbed 6/11 Beer 9/1
Over 20ft average cube blocks extra cost.

TIMBER

Softwood—sawn—random lengths.

		Per	Standard.	Per cubic foot.
Carcassing quality	£105			13/4
Joinery quality	£140 and up			17/-
Plain edged unsorted flooring, per square	3in	1in	1½in	1½in
	90/-	115/-	146/-	175/-
½in insulating wall board (600 yards) 3/11 yard super.				
Larger quantities cost less, and smaller quantities more.				

SUNDRIES—

Felt, roofing and inodorous (best) . .	2/10½	yard super
Do., inodorous, 2nd quality and sarking .	2/2	do.
Do., sheathing, black	1/7	do.

Glue 2/- per lb. Glass paper 4/6 per cwt.

Nails: brads (2½") 58/- cwt. Cut clasps (2½") 60/3 per cwt.

Panel pins 1/- per lb. Sash line, cotton (No. 8) 198/6 per gross.

Wall boards. Up to 9 sheets

Insulating, ½" 5d. per sq ft

Hardboard: ½" 7½d. and ¾" 10½d. per sq ft

Slag wool 3/6 foot cube

Wood screws: 1½" long—No. 8 size—per gross: Steel 2/10

Japanned round head 3/8. Brass 9/11. Brass round head 12/10.

HARDWOOD—

		Per foot super.			
Prime		½in	¾in	1in	2in
Mahogany (African)	1/6	1/11	2/2	4/6	
Do. (Honduras)	2/4	3/2	3/7	7/4	
Oak (American), white—northern					
—plain, kiln dried	1/1	1/6	1/8	3/9	
Do.—Quartered	1/2	1/7	1/10	4/4	
Do.—European	1/8	2/4	2/8	5/5	
Teak—Burma and Siam 1st class . . .	2/4	3/3	3/9	7/5	
Walnut (African)	1/3	1/9	2/-	4/4	

QUALITY, STANDARD SOFTWOOD DOORS.

1½in, 4 Panels, horizontal, moulded both sides, in quantities of from 12 to 49.

2' 9" x 6' 6"		2in do., but top panel open, with beads.	
at 58/6 each.		2' 9" x 6' 6"	2ins 3 panel, do. as last.
		at 71/- each	
2' 6" x 6' 6"		2' 9" x 6' 6"	2ins, 2 panel
at 55/3 each.		at 65/9 each	ditto as last.
		2' 6" x 6' 6"	2' 9" x 6' 6"
2' 3" x 6' 6"		at 67/3 each	at 60/- each
at 52/9 each.			
		2' 0" x 6' 6"	2' 6" x 6' 6"
at 50/3 each			at 57/- each

IRONMONGERY

		2in	3in	4in	5in	6in
Cast iron Butts, per pair	11½d	1/6	2/4½	4/4½	6/3	
Hinges, spring, single						
action regulating, japanned, each	—	6/9	9/-	12/-	15/-	
Do. but double action						
spring only, each	—	12/-	15/6	22/9	27/9	
Do. blank only, each	—	5/6	9/6	12/9	16/6	

CURRENT MARKET PRICES (Continued)

IRONMONGERY—Continued

	12in	18in	24in	30in	36in
Tee hinges (japanned), per pair ..	1/9	3/3	—	—	—
Do. but stronger, per pair ..	2/4	4/5	6/11	—	—
Hook and Ride hinges, per pair ..	—	—	11/9	14/5	22/-
BOLTS—each—	3in	4in	6in	8in	10in 12in
Cabinet, barrel, straight or necked ..	1/5	1/8	2/2	—	—
Square spring, with brass knob ..	1/4½	1/8	2/2	—	—
Tower bolts ..	—	1/4	1/10	2/6	3/1 3/8
Barrel bolts ..	—	2/7	3/10	5/1	6/5 7/10
Add to Tower or Barrel bolts if necked ..	—	4d	5d	6d	6d 6d
LOCKS—each—					
Rim lock, 2 lever, wrought brass bolt and bushing ..	11/5				
Mortice lock, 2 lever, bushed	14/4				
Cylinder latches, japanned case ..					
Brass sash fastener ..					
Casebolt fasteners (malleable) ..					
Do. stays (do.) ..					
Axle pulleys (brass face, iron wheel) ..					
Do. as last, but with brass wheel ..					
Sash line, No. 8 Anchor yellow label ..					

METAL GOODS

Basis— Rolled steel joists, all sections from 5" x 4½" to 16" x 6" inclusive (except 9" x 7", 10" x 8", 12" x 8" and 14" x 8") (over one ton) ..	£28/10/0	per ton
Extras— 9" x 7" section ..	5/-	do.
4" x 4½", 5" x 3", 10" x 8", 12" x 8", 14" x 8" and 16" x 8" to 20" x 7½" sections inclusive ..	10/-	do.
22" x 7" section ..	15/-	do.
4" x 2½", 4" x 3", and 24" x 7½" sections ..	20/-	do.
Steel angles and tees ..	£29/10/0	do.
Steel bars (average ex mills) ..	£28/10/0	do.
Mild steel rods ½" diameter and upwards, cut to lengths within the usual margin and bent to normal schedules for reinforcement ..	35/-	per cwt
Extras per ton—		
½in and ¾in diameter in size ..	15/-	per ton
¾in do. do. ..	15/-	do.
1in do. do. ..	22/6	do.
1½in do. do. ..	30/-	do.
2in do. do. ..	60/-	do.
2½in do. do. ..	90/-	do.
Extras for length—		
5ft to 3ft ..	7/6	do.
3ft to 2ft ..	15/-	do.
2ft ..	22/6	do.
40ft to 45ft ..	15/-	do.
45ft to 50ft ..	22/6	do.
Bolts and nuts ..	75/-	per cwt
Trench covering, including trays 1½in deep and rebated frames, 9in wide ..	10/-	foot run
Do., but 12in wide ..	13/9	do.
Do., but 14in wide ..	15/-	do.
Do., but 18in wide ..	16/9	do.

METAL WINDOWS AND DOORS—

Steel casement doors and frames for glazing ..	9/6	foot super
Do. folding type ..	7/6	do.
Fireproof steel framed doors ..	30/-	do.
Strong room doors ..	65/-	do.
Strong room gates ..	30/-	do.
Steel windows part opening commercial type ..	9/-	do.

CHAIN LINK FENCING—

In 25 yards lineal rolls inclusive of line wire.				
2in mesh.		Height in inches—		
	36	42	48	60
104 Wire gauge ..	84/9	99/0	111/3	141/2
12½ do. ..	59/8	69/7	79/7	99/6
14½ do. ..	42/7	49/8	56/10	71/1

DOUBLE SOOT DOORS AND FRAMES—

Fitted with brass turnbuckle 9in x 9in 12in x 12in 14in x 12in and cast key ..	15/6	20/-	31/9
--	------	------	------

SLIDING DOORS, GATES AND PARTITIONS—

Factory sliding doors in two leaves containing about 100 square feet with mild steel angle frames covered with 24 gauge corrugated galvanized sheeting and including hanging tubular track and gear complete ..	10/-	foot super
Factory entrance gates with mild steel frames clad with 2in mesh chain link complete ..	8/-	do.
Steel partitioning, glazed (rough cast) and stove enamelled ..	12/-	do.

STEEL ROOF LIGHTS—

Lanterns with vertical sides, and hipped roof, glazed with ½in cast glass and lead flashed (180ft super or over, all surfaces measured) ..	12/6	foot super
Skylights of similar construction (180ft. super or over, all surfaces measured) ..	11/6	do.

DOMESTIC BOILERS

For hot water or heating, for use with solid fuel, including base plates.

Gal. per hour from 40 to 140 deg.	Heating only direct radiation sq. feet	Black finish	Vitreous enamel finish	Vitreous enamel side jackets
		£ s d	£ s d	s d
20	—	6 3 6	7 10 0	10 0
20	55	7 3 6	9 2 9	11 3
20	55	—	12 1 0	—
25	70	—	14 14 6	—
25	70	8 11 6	10 14 0	13 6
40	110	13 19 6	16 12 3	16 0

Radiators for heating—3/6 per sq. foot heating surface.

GAS, WATER AND STEAM TUBES

(From Standard List.)

Internal Diameter—	½in	¾in	1in	1½in	2in	2½in	3in	4in	5in
Tubes .. per ft	4d	4½d	5½d	6½d	9½d	1/1	1/4½	1/10	1/10
Bends .. each	8d	9d	11d	1/2	1/7½	2/7½	3/2	5/2	5/2
Elbows, sq. do.	10d	11d	1/1	1/3	1/6	2/2	2/7	4/3	4/3
Do., round do.	11d	1/1	1/2	1/5	1/8	2/4	2/10	4/8	4/8
Tees .. do.	1/-	1/1	1/3	1/7	1/10	2/6	3/1	5/1	5/1
Crosses .. do.	2/2	2/4	2/9	3/3	4/1	5/6	6/7	10/8	10/8
Backnuts .. do.	2d	2d	3d	3d	5d	6d	8d	1/1	1/1
Sockets .. do.	3d	3d	4d	5d	6d	8d	10½d	1/3	1/3
Sockets, dimin. .. do.	4d	5d	6d	7d	9d	1/-	1/4	2/-	2/-

DISCOUNTS OFF ABOVE

In random lengths and in quantity.

TUBE—

Class A (light)	—30%	Black	+ 3½%	Galvanized
Class B (heavier)	—20%	Do.	+ 12½%	do.
Class C (heaviest)	—10%	Do.	+ 27½%	do.

FITTINGS—

Light weight	± 0%	Do.	+ 17½%	Galvanized
Heavy do.	+ 7½%	Do.	+ 25%	do.

RAINWATER GOODS (Painted or Unpainted)

Rainwater pipes, 6ft lengths, 2in 2½in 3in 3½in 4in 5in						
per yard	2/8	2/9½	3/1½	3/6½	4/1½	5/4½
Shoes ..	each	1/1½	1/3½	1/6	2/-	2/3
Bends ..	each	1/3½	1/6	1/10½	2/3	2/8½
Hends ..	each	1/10½	2/1½	2/6	3/0½	3/4½
Offsets, ¼in projection ..	each	1/7½	2/-	2/3	2/6½	3/3
Do. 9in do ..	each	2/1½	2/4½	2/9½	3/6	4/2½
Single junction ..	each	1/11½	2/3½	2/9½	3/3	3/11½
Half round gutters, 6ft. lengths	per yard	—	—	1/3½	1/5	1/5½
Angles and nozzles ..	each	—	—	1/0½	1/2½	1/3½
Stop ends ..	each	—	—	3½d	3½d	5½d
O.G. gutters, 6ft. lengths	per yard	—	—	1/8½	1/10½	1/10½
Angles and nozzles ..	each	—	—	1/5½	1/5½	1/6
Stop ends ..	each	—	—	4½d	5½d	6½d

The above prices plus 81% added to foot of invoice.

CURRENT MARKET PRICES (Continued)

PLASTERING MATERIALS

Sand, lime, cements and various plasters are previously included under those heads—			
Metal lathing ($\frac{1}{8} \times 24$ G.) (20 yds.)	..	2/10 $\frac{1}{2}$	sq yard
Plaster baseboard $\frac{1}{8}$ " (150 yds.)	..	2/4 $\frac{1}{2}$	do.
Plaster wallboard, $\frac{1}{8}$ " (do.)	..	2/9 $\frac{1}{2}$	do.
Scrim, 2" cotton (100 yds. roll)	..	9/1	per roll
Scrim, 3 $\frac{1}{2}$ " jute (do.)	..	12/5	do.
Lath nails, galvanized	..	1/5	lb
Cow hair	..	97/6	per cwt.
White glazed tiles (6" \times 6" \times $\frac{1}{4}$ ")	small	16/9	sq yard
Do. rounded on one edge	quantity	20/-	do.
Do. on two adjoining edges	..	24/6	do.

PLUMBER'S GOODS

Sheet lead 4 lb. in 1 ton lots, 199/- per cwt.

IRON SOIL AND WASTE PIPE—

	2in	2 $\frac{1}{2}$ in	3in	3 $\frac{1}{2}$ in	4in
L.C.C. coated (M) per yard	3/1 $\frac{1}{2}$	3/4	3/8 $\frac{1}{2}$	4/2 $\frac{1}{2}$	4/9 $\frac{1}{2}$
Bends	2/3 $\frac{1}{2}$	2/6 $\frac{1}{2}$	2/9 $\frac{1}{2}$	3/6	3/11 $\frac{1}{2}$
Swannecks, 4 $\frac{1}{2}$ " projec.	do.	2/9 $\frac{1}{2}$	3/3	4/5 $\frac{1}{2}$	5/1 $\frac{1}{2}$
Do. 9in do.	do.	3/9	4/2 $\frac{1}{2}$	5/1 $\frac{1}{2}$	7/-
Junctions	do.	2/9 $\frac{1}{2}$	3/6	4/2 $\frac{1}{2}$	4/10 $\frac{1}{2}$
Round access doors	do.	5/3	5/3	5/3	5/7 $\frac{1}{2}$

The above prices plus 81% added to foot of invoice.

GALVANISED CISTERNS—

(Less than four)	gallons		
each	100	200	300
Angle iron at top and corner plates:			
14 gauge	129/-	238/-	332/-
12 ditto	156/-	262/-	356/-
$\frac{1}{2}$ in plate	182/-	297/-	409/-

HOT WATER TANKS—

Riveted with ring:	25	30	50
12 gauge	99/-	108/-	151/-
$\frac{1}{2}$ in plate	108/-	118/-	167/-

CYLINDERS—

Riveted with hand hole:	25	37	48
12 gauge	127/-	149/-	170/-
$\frac{1}{2}$ in plate	141/-	166/-	190/-

PLUMBERS BRASSWORK, etc.

	Each			
Cast Brass—good quality	$\frac{1}{2}$ in	$\frac{3}{4}$ in	1in	1 $\frac{1}{2}$ in
Boiler screws, single nut	2/2 $\frac{1}{2}$	2/9 $\frac{1}{2}$	4/6	6/10
Boiler, double nut	2/9 $\frac{1}{2}$	3/5	5/7	8/4
Cap and lining	1/3	1/8	2/3	2/5
Plumbers unions	3/9	5/2	7/7	11/9
Ball valves, Croydon S.I.	11/10	16/7	28/6	43/-
Ditto with Fly nut and union	13/6	20/1	34/8	53/2
Bib valves, crutch top, screwed iron	9/10	15/2	—	—
Ditto with screw boss	11/10	17/3	—	—
Stop valves, screwed iron	8/8	12/-	18/3	37/1
Ditto, iron and union	10/8	13/9	24/5	44/-
Ditto, double union	12/4	16/11	26/8	49/-
Waste plug, chain, stay and union	—	—	8/4	9/-
Caps and screws (heavy)	1 $\frac{1}{2}$ in	1 $\frac{1}{2}$ in	2in	4in
Ditto (light)	4/2	4/6	5/10	17/7
Sleeves, long	2/5	2/10	4/2	11/10
Ditto, short	—	4/10	6/11	14/-
Thimble	—	2/11	3/4	10/-
Ditto, bent	—	3/9	4/6	9/8
	—	—	—	27/2
Lead 7 lb. P. trap	9/-	11/9	16/6	—
Ditto, S. trap	11/-	14/6	20/4	—
Lead 6 lb. P. traps with 3in seal	10/-	12/1	—	—
Ditto, but S traps ditto	12/5	15/2	—	—
Wire balloon guards, copper, 2in 3/-; 4in 3/3.				
Ditto, galvanized iron, 2in 1/9; 4in 1/11.				
Plumbers solder, 4/9 lb.				
Hair felt, 34in \times 20in, 24 oz., 7/5 sheet.				
Boss white jointing compound, 2/- lb.				
Gaskin, 1/9 lb. Hemp, 6/- lb.				

COPPER TUBES—Extract from B.S. 659/1944—

Internal work (semi hard).		3 Cwts. lots.	
Nominal bore	Outside diameter	Weight lb per ft	Price per lb
	inch		pence
$\frac{1}{2}$ in	0.596	19	0.27
$\frac{3}{4}$ in	0.846	19	0.39
1in	1.112	18	0.62
1 $\frac{1}{2}$ in	1.362	18	0.76
2in	1.612	18	0.91
2 $\frac{1}{2}$ in	2.128	17	1.40

CAPILLARY TYPE CONNECTIONS—

All ends copper to copper.

Each	$\frac{1}{2}$ in	$\frac{3}{4}$ in	1in	1 $\frac{1}{2}$ in	2in
Straight	2/-	2/9	4/4	5/8	7/8
Bends	5/2	6/4	9/1	12/5	19/5
Tees	4/9	5/6	9/4	13/-	18/6
Brackets (brass)	2/2	2/5	2/10	3/-	3/5

GLASS

English flat drawn Sheet Glass in squares, cut to size	Ordinary Quality
Per foot super.	Glazing
24 oz., do.	5 $\frac{1}{2}$ d.
26 oz., do.	7 $\frac{1}{2}$ d.
32 oz., do.	9 $\frac{1}{2}$ d.

Figured, Rolled and Cathedral glass, cut to size, per foot super: White 7 $\frac{1}{2}$ d. Tinted 10 $\frac{1}{2}$ d.

Prismatic glass, cut to size .. 1/3 per foot super

Rolled and wired glass, cut to size, per foot super:

$\frac{1}{8}$ " Rolled	7 $\frac{1}{2}$ d.
$\frac{1}{8}$ " or $\frac{1}{4}$ " do.	8 $\frac{1}{2}$ d.
$\frac{1}{8}$ " or $\frac{1}{4}$ " Rough cast	8 $\frac{1}{2}$ d.
$\frac{1}{8}$ " Wired, rolled or cast	9 $\frac{1}{2}$ d.
Georgian wired cast	10d.
White Muffled	2/3
Fluted (No. 4)	10 $\frac{1}{2}$ d.
Feathered	10 $\frac{1}{2}$ d.
Reeded (Narrow, Broad, Cross and Major)	9 $\frac{1}{2}$ d.
Reedyte (Narrow and Broad)	9 $\frac{1}{2}$ d.
$\frac{1}{8}$ " Calorex Cast	1/2 $\frac{1}{2}$ d.
$\frac{1}{4}$ " Calorex Cast	2/5d.
$\frac{1}{2}$ " Polished Plate Calorex	Prices according to specification.

POLISHED PLATE GLASS, cut to sizes, ordinary substance approximately $\frac{1}{2}$ in (Tariff)

Per foot super	General Glazing	Selected Glazing Quality	Silvering Quality
In plates not exceeding			
2 feet super in each	2/8	2/10	3/4
3 feet do.	3/-	3/5	4/1
5 feet do.	3/2	3/10	4/7
45 feet do.	3/9	4/1	5/7
100 feet do.	4/5	5/7	7/2

Extra sizes, i.e., plates exceeding 100 feet super in each, or 160 inches long, or 96 inches wide, at higher prices.

DECORATING MATERIAL

	Price	Unit
Aluminium Paint	35/-	Gallon
Distemper, ceiling	33/9	Cwt.
Distemper, washable	112/-	do.
Enamel	60/-	Gallon
Gold Metallic Paint	86/6	do.
Heat Resisting Paint	45/-	do.
Japan, black	22/-	do.
Knotting	30/-	do.
Linseed Oil	21/9	do.
Boiled ditto.	22/3	do.
Proprietary Paints (good class)—		
Finishing	58/-	do.
Priming	37/-	do.
Undercoat	54/-	do.
Paperhangers Paste	33/-	Cwt.
Petrifying liquid	7/6	Gallon
Putty	59/-	do.
Size	9/3	Firkin
Terebine	16/-	Gallon
Turpentine substitute	5/3	do.
Varnish, oak, copal, inside use	32/-	do.
Ditto., ditto., outside use	35/-	do.
Ditto., white, eggshell, flat	44/6	do.
White lead mixed paint	72/-	do.
White lead	227/-	Cwt.
Whiting	9/3	Cwt.

News of the BUILDING INDUSTRY

WELCOMING THE LORD MAYOR and Lady Mayoress at the L.M.B.A. luncheon in the Savoy, the President, Mr. Dudley F. Cox, said:—

"We who welcome you to-day are builders, a rather uncomprehended class of people whose light is kept somewhat under the proverbial bushel, because the credit for a great building operation goes primarily to those concerned with its conception and design. But we have our own particular satisfaction. That lies in the actual performance of the work; it is the satisfaction of material creation which is given to those who work either literally or figuratively with their hands."

"The foundations of British craftsmanship were laid in mediaeval times by the Guilds. Those Guilds became the Worshipful Companies of the City of London, and under their care and guidance that craftsmanship rose to supreme heights. To-day, we have here representatives of nine out of the ten Worshipful Companies whose aims and pursuits are closely connected with our industry."

"It may be that austerity of design, here by necessity now, may stay with us by consent, or even possibly by desire, in the years to come. It may be that the high degree of all-round craftsmanship to which we have been accustomed in the past, will, in the future, only be required of a proportion of our trade. But it is incumbent upon our whole industry to ensure, whatever the circumstances or whatever the future, that the necessary opportunities for training and advancement are made available for the willing learner."

"We are making every effort to ensure that the necessary standard of craftsmanship is preserved. We work on our own, and on joint committees in close collaboration with our friends the operatives, and our joint deliberations are harmonious and of the utmost importance and value. The Technical Schools, too, the Youth Employment Officers, Educational Authorities in all connected spheres are concerned with us in maintaining the foundations of our future. It is, therefore, a matter of considerable satisfaction to note the increasing co-operation which we are now developing with the City Companies, and I hope that this co-operation will be extended until those Companies are closely and intimately connected with us in the development of craft training."

"For a long time past, the London Master Builders' Association has made contributions to the prize funds of technical schools in London. This year we have set up an Educational Awards Fund to which my Council has voted a substantial sum. We intend to maintain this fund to provide prizes for technical schools and financial assistance to promising young craftsmen for them to continue their



L.M.B.A. LUNCHEON TO THE LORD MAYOR.

In his speech the Lord Mayor endorsed the need for co-operation between the L.M.B.A. and the City Guilds and referred to the close association there had been in the past between all ranks in building—the Master, the 'middleman' and the apprentice—as the basis of good craftsmanship. In the group above from left to right are Councillor A. Sciver, the Mayor of Westminster; Lady Lowson, the Lady Mayoress; Mr. Dudley F. Cox, President L.M.B.A.; Alderman Sir Denys Lawson, the Lord Mayor; and the Rt. Hon. Lord Morrison, Parliamentary Secretary to the Ministry of Works. In the background is Mr. G. H. A. Hughes, Director of the L.M.B.A.

studies. We have had a medal struck this year in silver and bronze. It will be allotted to discussion with the Educational Authorities for proficiency in various subjects, and we trust that the L.M.B.A. Medal will become, not only an eagerly sought honour, but very soon the hallmark of the trained and skilled craftsman."

"I have taken the opportunity of referring specifically to training for craftsmanship because it is a matter which is of primary importance. It is one to which an increasing amount of attention has been given in the years since the war. It is one, I know, too, my Lord Mayor, which lies very close to your heart."

SIR CECIL WEIR, K.B.E., M.C., has joined the Board of Directors of The Pyrene Company Limited.

IN A LETTER to Sir Cuthbert Clegg, President of the British Employers Confederation, the Chancellor of the Exchequer, Mr. Hugh Gaitskell, M.P., says:

"You will be aware of the difficulties we are now meeting in carrying out the rearmament programme while at the same time increasing exports in order to pay our way. These difficulties would be

eased if our demands for consumer goods could be reduced."

"Experience has shown that when facilities for savings are provided by employers they are generally appreciated. The majority of firms now provide such facilities but a number of them have discontinued this valuable service since the war ended and some new industrial units have not yet started Savings Groups. Perhaps they would now be willing to do so? . . . I should be most grateful, therefore, if your Confederation could invite employers to review the question of facilities for savings with the object of improving them, or of introducing them where none exists."

THE BOARD OF TRADE have made a new reference to the Monopolies and Restrictive Practices Commission. The matter to be investigated is the supply of imported timber (hardwood, softwood and plywood). The reference requires the Commission to make a report to the Board of Trade both about the facts of the matter and about the bearing of the facts on the public interest.

Any person or organization wishing to offer evidence on the subject matter of this reference should write to the Secretary of the Monopolies and Restrictive Practices Commission, 3, Cornwall Terrace, London, N.W.1.

THE NATIONAL TRUST announces the acceptance of Penrhyn Castle, Bangor, Caernarvonshire, together with 40,617 acres of agricultural and mountain land of great beauty lying within the North Wales National Park. The Castle will not be open to the public until next spring, when a further announcement will be made.

(Continued on page 442)

ACCIDENTS IN BUILDING

No.	Business	Man-Hours Worked (Thousands)	Lost Time		Total Hours Lost	Frequency Rate	Severity Rate
				Total			
1	Roofing Contractors ...	182	1	30	0.6	17	
2	Building Repairs ...	470	3	636	0.6	137	
3	Municipal Engineering ...	3,453	83	12,002	1.8	348	
4	Building Contractors ...	244	5	1,024	2.1	420	

The above table is taken from the Bulletin of the Royal Society for the Prevention of Accidents and shows accident figures for 1950.

GOOD, BAD OR INDIFFERENT?

No. 54.—By A. FOREMAN

Vermiculite

SEVERAL times lately I have been asked questions about the material called "Vermiculite." This material seems to have increased in use very rapidly for a wide range of building purposes, as it has extremely valuable properties. It has, unfortunately, one serious disadvantage in that, as far as I can find out, it is wholly imported from U.S.A. and South Africa and consequently has to be paid for in hard earned overseas currency which has to be offset by exports.

Vermiculite is probably most valuable as a thermal insulation material and for its sound-absorbing properties. It is also becoming used as a lightweight aggregate for concrete and for plaster. It is a natural mineral, being of the mica family, and is aluminium magnesium silicate. It is mined or quarried in the crude ore form; this ore is dried and crushed prior to being passed through direct fired furnaces at 2,000 degrees F. which causes exfoliation. After it is cooled it is graded to size; at present there does not seem to be any agreed specification in this country for its grading and each seller has his own grading which appears to be slightly different. It would help the user to have standardized grades in the form of a British Standard for this material on lines similar to the B.S.s for other aggregates such as clinker and blastfurnace slag. The grades are generally from No. 1 which is a very fine mesh size suitable for the finishing coats of plaster to No. 6 which is a very coarse aggregate between 4in and 1in suitable for concrete screeds or loose fill. The weight per cubic ft. varies according to the grading from about 10lb for the finest material down to about 5lb for the coarsest quality; thus when a coarse grade is used as a loose fill for insulation on a ceiling a 3in layer, which provides a good standard of insulation, weighs only about 1½lb per sq. ft. and can be carried by the nominal joists and plaster-board without trouble arising from additional loading.

When the material is used as a lightweight concrete aggregate considerable care should be taken to keep the mixing out of the wind as it is so light in weight. It is wise to mix the cement and Vermiculite dry until the mixture is of a uniform colour before adding the water and then to continue mixing until the mixture is again of uniform colour. Concrete mixes using a less coarse grade and laid as a 2in screed for an insulation to concrete flat roofs weigh about 4lb per sq. ft. and provides a "U" value in the region of 0.24. It is equally useful as an insulation screed laid on concrete for solid ground floors or on structural floors to which wood blocks or other floor coverings may be laid. I understand screeds of Vermiculite/cement mixes do not affect pipes and services buried in them.

The material has excellent fire-resistance properties and is therefore valuable for concrete partition blocks and fire-resistant casings as they are also very light in weight.

There is an increasing use of vermiculite/gypsum plasters. The main use of this material is to provide plaster having high fire protection qualities, good ther-

mal insulating values and sound absorption. The mixture used is, I understand, about four parts by volume of vermiculite to one part of gypsum plaster by volume. The fine grade material is used for this purpose. Great care is needed to re-mix these products before use if they are delivered to sites in a ready-mixed form, as they are liable to separate badly in transit. Abroad concrete walls and partitions are often plastered with a mixture of 4 to 4½ parts of vermiculite to 1 part of cement with a small amount of the cement, say 10 per cent, replaced by hydrated lime.

Vermiculite is odourless, vermin-proof, rot-proof and unlikely to be affected by fire. The material has been used for many other purposes such as for lagging when it is mixed with asbestos and mag-

nesite, and as sound absorption slabs and insulating slabs for cold storage when mixed with latex or resin binders. It is said to be helpful when added to moulding and core sand for foundry casting.

The excellent properties of this material frequently make me wonder whether there are not materials natural to this country which, with suitable treatment, would perform similar functions and thus avoid overseas expenditure, use of shipping space and so on; even if they were not quite so good as Vermiculite they might be an economic proposition and could be more generally used. I saw some experimental samples of one material in the light weight aggregate group some time ago, but I have never heard of its commercial exploitation or of any other alternative material.

THE PAINTER OF TOMORROW

The establishment of a National College of Interior Design is proposed by Mr. John M. Holmes, Principal, Regional College of Art, Manchester, in a new I.C.I. Paints Division publication, "The Painter of Tomorrow," containing contributions by officials of the Federation of Painting Contractors, the National Society of Painters, the National Federation of Property Owners, the National Union of Townswomen's Guilds and the Institute of British Decorators.

"In considering the training of the decorators of the future, it may be noted," writes Mr. Holmes, "that on the Continent there are architect decorators or interior architects who are qualified to plan, design and execute interiors and their furnishings and to supervise the arts and crafts essential to their conception. In this country we have no recognition of such work as a separate profession and it is often carried out by the architect who chooses to specialize in interior design, or, at times, by the dilettante or the amateur. We have no college or central school of decoration to provide the desirable but necessarily complex facilities for graduate and post-graduate study."

"Such a college," Mr. Holmes urges, "could unify the various branches of decorative art." Advanced students would thus be brought together to solve design problems and to project a decorative idiom suitable for the present day.

To overcome the shortage of apprentice painters, which this year amounted to some 9,000 on a target figure of 27,500, the booklet suggests a shorter apprenticeship. It urges more training in ordinary painting, even at the expense of training in special work.

Owing to the effects of taxation and Government policy, the era of "luxury" jobs is unlikely to recur, according to Mr. V. Beacham, of the National Society of Painters, who remarks that "whilst the old type of first-class decorative work on the old type of country mansion has almost gone for ever, there has been a great fillip given to general, commercial and the better type of painting work, particularly in the London area, of recent years." He adds that "a shorter period of apprenticeship is well worth consideration for it is not the length of apprenticeship

which turns out a good craftsman; it is the intensity of training which he receives which decides whether he will be a good craftsman or otherwise." Mr. V. W. Hosp states that the Federation of Painting Contractors "would like to see the present period of apprenticeship reduced from five to three years, with facilities available, as indeed they are at the present time, for the young painter to continue his training in the more artistic and skilled field if he possesses the necessary talent and determination."

In a plea for closer co-operation between the housewife and the decorator, Miss Christine Cowper, Secretary, National Union of Townswomen's Guilds, writes: "Recently I had a cupboard and shelves in my scullery altered and the whole repainted. I have good reason to be grateful to the craftsman for his excellent work, which extended beyond merely good painting to forethought and help which would ensure that his work was protected and I was satisfied with the result. He left precise instruction as to when things could be put back on shelves and how long it should be before the kitchen cabinet was returned to its place. He pointed out the need to replace finger plates removed some years ago, and this was done." She adds: "This is the kind of practical and knowledgeable co-operation that makes for good relations between the tradesman and the consumer and convinces me that the money was well spent. If that could only happen over the whole field of household decoration, and the knowledge and views of housewife and craftsman march together in relative harmony, then an important step forward would have been taken to ensure that in this respect at least home environment makes its right contribution to happy homemaking and family life."

Mr. L. H. Williams, Chairman of I.C.I.'s Paints Division, estimates that the cost of replacement of the buildings in Britain would be of the order of £10,000,000,000 and remarks that in any circumstances protection of such considerable assets would be an obvious precaution, but that the present limitation on new building makes it all the more essential to protect the nation's existing investment by effective painting.

A & B N ARCHITECTS' DETAILS

INDEX OF SHEETS NOS. 101-150

ARCHITECT & BUILDING NEWS DETAIL SHEETS

Edited by Edward D. Mills, F.R.I.B.A., F.R.S.A.

INDEX (1).

Sheets 101-150

	Author	Number
A balcony, Housing at Strand on the Green, London, W.4	Harry Durell	A.101.E.6.
Window, Houses in Chichester	Powell & Moya	A.102.E.6.
Entrance, Houses in Chichester	Powell & Moya	A.103.L.5.
Two Display Panels, Shop in Oxford Street, London	Ellis E. Somake	A.104.B.13.
Counter, Shop in Oxford Street, London	Ellis E. Somake	A.105.B.13.
Double Desk, Travel Agency, New York, U.S.A.	Serge Chermayeff & Ketchum, Gina & Sharp	A.106.B.13.
Entrance, Flats at South Hill Park, London	Alexander Gibson & Margaret Murray	A.107.E.5.
Balcony, Flats at Hackney, London	Norman & Dawbarn	A.108.E.6.
Structural Detail, Boiler House, Brynmawr, Wales	Architects Co-operative Partnership	A.109.A.17.
Porch, House at Ruislip, Middx.	Howard V. Lobb	A.110.E.5.
School Assembly Hall Construction, Luton, Beds.	Howard V. Lobb	A.111.D.17.
French Windows, House at Kingston, Surrey	Taylor & Green	A.112.E.6.
French Doors, House at Kingston, Surrey	Taylor & Green	A.113.E.5.
Monument to the Dead of Mauthausen, Milan	L. B. Belgioioso, E. Peressutti, E. N. Rogers	A.114.C.17.
Newspaper Rack, Park Green Library, Macclesfield	E. Allan Heppenstall	A.115.C.13.
Library Furniture, Park Green Library, Macclesfield	E. Allan Heppenstall	A.116.C.13.
Double Glazed Window, Office Building, Zurich, Switzerland	Oskar Bechener	A.117.B.6.
Prefabricated Window Surrounds, Flats, Milan	Belgioioso, Peressutti & Rogers	A.118.E.6.
Precast Concrete Steps, School at Erith, Lessness Heath	Elie Mayorcas	A.119.D.7.
School Hall Construction, Erith, Lessness Heath	Elie Mayorcas	A.120.D.4.
End Window, Factory at Duxford	Ove, Arup & Partners	A.121.A.6.
Roof Glazing, Factory at Duxford	Ove, Arup & Partners	A.122.A.10.
Laboratory Unit, Factory at Duxford	Ove, Arup & Partners	A.123.A.17.
Desk & Showcase fitting, South African Tourist Bureau, London	James Cubitt & Partners	A.124.B.13.
Manager's Desk, South African Tourist Bureau, London	James Cubitt & Partners	A.125.B.13.
Suspended Ceiling in Showroom, South African Tourist Bureau, London	James Cubitt & Partners	A.126.B.3.
Booking Office, Royal Festival Hall, London	Sergei Kadleigh	A.127.C.17.
Skylon, Vertical Feature, South Bank Exhibition	Powell & Moya	A.128.K.17.
Decorative Screen, South Bank Exhibition	Edward D. Mills	A.129.K.7.
Eaves Detail, Dome of Discovery, South Bank Exhibition	Ralph Tubbs	A.130.K.4.
Eaves Details, Lion & Unicorn Pavilion, South Bank Exhibition	R. Y. Goodden & R. D. Russell	A.131.K.4.
Window Details, Lion & Unicorn Pavilion, South Bank Exhibition	R. Y. Goodden & R. D. Russell	A.132.K.6.
Canvas Louvers, County Pavilion, South Bank Exhibition	Brian O'Rourke	A.133.K.17.
Glass & Canvas Screens, County Pavilion, South Bank Exhibition	Brian O'Rourke	A.134.K.17.
Wall Construction, Harbour Bar, South Bank Exhibition	Maxwell Fry & Jane Drew	A.135.K.2.
Structural Details, Harbour Bar, South Bank Exhibition	Maxwell Fry & Jane Drew	A.136.K.4.
General Details, Thameside Restaurant, South Bank Exhibition	Maxwell Fry & Jane Drew	A.137.K.17.
Tower Details, South Bank Exhibition	Maxwell Fry & Jane Drew	A.138.K.6.
Staircase, Administration Building, Downstream Section F.O.B.	Edward D. Mills	A.139.K.7.
Wall Details, Administration Building, Downstream Section F.O.B.	Edward D. Mills	A.140.K.2.
Stanchion & Lamps, Regatta Restaurant, Upstream Section F.O.B.	Design Research Unit	A.141.K.17.
Double Hung Sash Windows, Regatta Restaurant, F.O.B.	Design Research Unit	A.142.K.6.
Display Panels, Sea & Ships Pavilion, Upstream Section F.O.B.	Basil Spence & Partners	A.143.K.17.
Aluminium Bridge, Upstream Section F.O.B.	Architects Co-operative Partnership, Ove, Arup & Partners, Engineers	A.144.K.17.
Belvedere Road Control Point, Upstream Section F.O.B.	Architects Co-operative Partnership	A.145.K.2.
Standard Litter Bin, South Bank Exhibition	Jack Howe	A.146.K.15.
Coffered Wall Panel, '51 Bar, South Bank Exhibition	Leonard Manasseh	A.147.K.2.
Restaurant Window, Royal Festival Hall, London	Robert H. Matthew & J. L. Martin	A.148.C.6.
Observation Window, Royal Festival Hall, London	Robert H. Matthew & J. L. Martin	A.149.C.12.
Cantilevered Dog-Leg Staircase, Royal Festival Hall	R. H. Matthew & J. L. Martin	A.150.C.7.

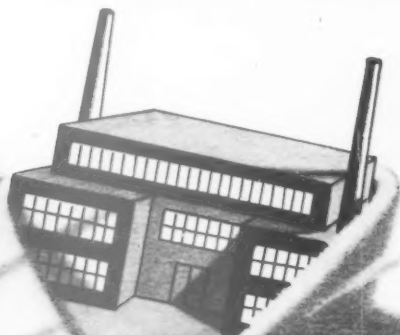
WALLS. 2.

Number	Author	Location	Subject
A.135.	Maxwell Fry & Jane Drew	Harbour Bar, South Bank Exhibition	Wall Construction
A.140.	Edward D. Mills	Administration Building, Downstream Section F.O.B.	Wall Details
A.147.	Leonard Manasseh	'51 Bar, South Bank Exhibition	Coffered Wall Panel

CEILINGS. 3.

A.126.	James Cubitt & Partners	Showroom, South African Tourist Bureau, London	Suspended Ceiling
--------	-------------------------	--	-------------------

Keep workers warm



fit "INSULIGHT" double-glazing units

Workers can have more warmth and comfort from improved thermal insulation, when "INSULIGHT" double-glazing units are used. These units reduce heat losses, and thus cut heating costs. Used in conjunction with air-conditioning plant, the load is reduced and power saved,

and the initial capital cost is less. The hermetically sealed dry air in the space between the two glasses of the units restricts condensation and keeps the inside surfaces free from dirt. There are still only two surfaces to clean. The units can be fitted without difficulty.

Send for the booklet about their advantages and the methods of fixing.

Consult the Technical Sales and Service Department at St. Helens, Lancs., or Selwyn House, Cleveland Row, St. James's, S.W.1. Telephones: St. Helens 4001; Whitehall 5672-6. *Supplies are available through the usual trade channels.*



PILKINGTON BROTHERS LIMITED

"INSULIGHT" is the British registered trade mark of Pilkington Brothers Limited.

INDEX (2).

Number Author		Location	Subject	Roofs. 4.
A.120.	Elie Mayorcas	Erith, Lessness Heath	School Hall Construction	D.4.
A.130.	Ralph Tubbs	Dome of Discovery, South Bank Exhibition	Eaves Detail	K.4.
A.131.	R. Y. Goodden & R. D. Russell...	Lion & Unicorn Pavilion, South Bank Exhibition	Eaves Detail	K.4.
A.136.	Maxwell Fry & Jane Drew ...	Harbour Bar, South Bank Exhibition...	Structural Detail	K.4.
DOORS AND ENTRANCES. 5.				
A.103.	Powell & Moya	Houses in Chichester	Entrance	L.5.
A.107.	Alex. Gibson & Margaret Murray	Flats at South Hill Park, London ...	Entrance	E.5.
A.110.	Howard V. Lobb	House at Ruislip, Middsx.	Porch	E.5.
A.113.	Taylor & Green	House at Kingston, Surrey	French Doors	E.5.
WINDOWS AND BALCONIES. 6.				
A.101.	Harry Durell	Housing at Strand on the Green, London, W.4	A Balcony	E.6.
A.102.	Powell & Moya	Houses in Chichester	Window	E.6.
A.108.	Norman & Dawbarn	Flats at Hackney, London	Balcony	E.6.
A.112.	Taylor & Green	House at Kingston, Surrey	French Windows	E.6.
A.117.	Oskar Bechener	Office Building, Zurich, Switzerland ...	Double Glazed Window	B.6.
A.118.	Belgioioso, Peressutti & Rogers	Flats, Milan	Prefabricated Window Surround ...	E.6.
A.121.	Ove Arup & Partners	Factory at Duxford	End Window	A.6.
A.132.	R. Y. Goodden & R. D. Russell...	Lion & Unicorn Pavilion, South Bank Exhibition	Window Details	K.6.
A.138.	Maxwell Fry & Jane Drew ...	South Bank Exhibition	Tower Details	K.6.
A.142.	Design Research Unit	Regatta Restaurant F.O.B.	Double Hung Sash Window	K.6.
A.148.	Robert H. Matthew & J. L. Martin	Royal Festival Hall, London	Restaurant Windows	C.6.
STAIRCASES. 7.				
A.119.	Elie Mayorcas	School at Erith, Lessness Heath	Precast Concrete Step	D.7.
A.139.	Edward D. Mills	Administration Building, Downstream Section F.O.B.	Staircase	K.7.
A.150.	Robert H. Matthew & J. L. Martin	Royal Festival Hall, London	Cantilevered Dog-leg Staircase ...	C.7.
LIGHTING—NATURAL AND ARTIFICIAL. 10.				
A.122.	Ove Arup & Partners	Factory[at Duxford	Roof Glazing	A.10.
SOUND INSULATION AND ACOUSTICS. 12.				
A.149.	Robert H. Matthew & J. L. Martin	Royal Festival Hall, London	Observation Window	C.12.
FURNITURE AND BUILT-IN FITTINGS. 13.				
A.104.	Ellis E. Somake	Shop in Oxford Street, London	Two Display Panels	B.13.
A.105.	Ellis E. Somake	Shop in Oxford Street, London	Counter	B.13.
A.106.	Serge Chermayeff & Ketchum Gina & Sharp	Travel Agency, New York, U.S.A. ...	Double Desk	B.13.
A.115.	E. Allan Heppenstall	Park Green Library, Macclesfield ...	Newspaper Rack	C.13.
A.116.	E. Allan Heppenstall	Park Green Library, Macclesfield ...	Library Furniture	C.13.
A.124.	James Cubitt & Partners	South African Tourist Bureau, London	Desk and Showcase Fittings ...	B.13.
A.125.	James Cubitt & Partners	South African Tourist Bureau, London	Manager's Desk	B.13.
EQUIPMENT. 15.				
A.146.	Jack Howe	South Bank Exhibition	Standard Litter Bin	K.15.
MISCELLANEOUS. 17.				
A.109.	Architects Co-operative Partner- ship	Boiler House, Brynmawr, Wales ...	Structural Detail	A.17.
A.111.	Howard V. Lobb	Luton, Beds.	School Assembly Hall Construction	D.17.
A.114.	L. B. Belgioioso, E. Peressutti, E. N. Rogers	Milan	Monument to the Dead of Maut- hausen	C.17.
A.123.	Ove Arup & Partners	Factory at Duxford	Laboratory Unit	A.17.
A.127.	Serge Kadleigh	Royal Festival Hall, London	Booking Office	C.17.
A.128.	Powell & Moya	South Bank Exhibition	Skydon, Vertical Feature	K.17.
A.129.	Edward D. Mills	South Bank Exhibition	Decorative Screen	K.17.
A.133.	Brian O'Rourke	County Pavilion, South Bank Exhibition	Canvas Louvers	K.17.
A.134.	Brian O'Rourke	County Pavilion, South Bank Exhibition	Glass & Canvas Screens	K.17.
A.137.	Maxwell Fry & Jane Drew ...	Thameside Restaurant, South Bank Exhibition	General Details	K.17.
A.141.	Design Research Unit	Regatta Restaurant, Upstream Section F.O.B.	Stanchion & Lamps	K.17.
A.143.	Basil Spence & Partners... ..	Sea & Ships Pavilion, Upstream Section F.O.B.	Display Panels	K.17.
A.144.	Architects Co-operative Partner- ship. Ove Arup & Partners, Engineers	Upstream Section F.O.B.	Aluminium Bridge	K.17.
A.145.	Architects Co-operative Partner- ship	Upstream Section, F.O.B.	Belvedere Road Control Point ...	K.17.

INDEX (3).

Number Author		Location	Subject	INDUSTRIAL A.
A.109.	Architects Co-operative Partnership	Boiler House, Brynmawr, Wales	Structural Detail	A.17.
A.121.	Ove Arup & Partners	Factory at Duxford	End Window	A.6.
A.122.	Ove Arup & Partners	Factory at Duxford	Roof Glazing	A.10.
A.123.	Ove Arup & Partners	Factory at Duxford	Laboratory Unit	A.17.
COMMERCIAL B.				
A.104.	Ellis E. Somake	Shop in Oxford Street, London	Two Display Panels	B.13.
A.105.	Ellis E. Somake	Shop in Oxford Street, London	Counter	B.13.
A.106.	Serge Chermayeff & Ketchum, Gina & Sharp	Travel Agency, New York, U.S.A.	Double Desk	B.13.
A.117.	Oskar Bechener	Office Building, Zurich, Switzerland	Double Glazed Window	B.6.
A.124.	James Cubitt & Partners	South African Tourist Bureau, London	Desk & Showcase Fitting	B.13.
A.125.	James Cubitt & Partners	South African Tourist Bureau, London	Manager's Desk	B.13.
A.126.	James Cubitt & Partners	South African Tourist Bureau, London	Suspended Ceiling in Showroom	B.3.
CIVIC C.				
A.114.	L. R. Belgioioso, E. Peressutti, E. N. Rogers	Milan	Monument to the Dead of Maut-hausen	C.17.
A.115.	E. Allan Heppenstall	Park Green Library, Macclesfield	Newspaper Rack	C.13.
A.116.	E. Allan Heppenstall	Park Green Library, Macclesfield	Library Furniture	C.13.
A.127.	Sergei Kadleigh	Royal Festival Hall, London	Booking Office	C.17.
A.148.	Robert H. Matthew & J. L. Martin	Royal Festival Hall, London	Restaurant Window	C.6.
A.149.	Robert H. Matthew & J. L. Martin	Royal Festival Hall, London	Observation Window	C.12.
A.150.	Robert H. Matthew & J. L. Martin	Royal Festival Hall, London	Cantilevered Dog-leg Staircase	C.7.
EDUCATIONAL D.				
A.111.	Howard V. Lobb	Luton, Beds.	School Assembly Hall Construction	D.17.
A.119.	Elie Mayorcas	School at Erith, Lessness Heath	Precast Concrete Steps	D.7.
A.120.	Elie Mayorcas	Erith, Lessness Heath	School Hall Construction	D.4.
DOMESTIC E.				
A.101.	Harry Durell	Housing at Strand on the Green, London, W.4	A Balcony	E.6.
A.102.	Powell & Moya	Houses in Chichester	Window	E.6.
A.107.	Alex. Gibson & Margaret Murray	Flats at South Hill Park, London	Entrance	E.5.
A.108.	Norman & Dawbarn	Flats at Hackney, London	Balcony	E.6.
A.110.	Howard V. Lobb	House at Ruislip, Mddx.	Porch	E.5.
A.112.	Taylor & Green	House at Kingston, Surrey	French Windows	E.6.
A.113.	Taylor & Green	House at Kingston, Surrey	French Doors	E.5.
A.118.	Belgioioso, Peressutti & Rogers	Flats, Milan	Prefabricated Window Surrounds	E.6.
EXHIBITIONS AND DISPLAYS. K.				
A.128.	Powell & Moya	South Bank Exhibition	Skyline, Vertical Feature	K.17.
A.129.	Edward D. Mills	South Bank Exhibition	Decorative Screen	K.17.
A.130.	Ralph Tubbs	Dome of Discovery, South Bank Exhibition	Eaves Detail	K.4.
A.131.	R. Y. Goodden & R. D. Russell	Lion & Unicorn Pavilion, South Bank Exhibition	Eaves Details	K.4.
A.132.	R. Y. Goodden & R. D. Russell	Lion & Unicorn Pavilion, South Bank Exhibition	Window Detail	K.6.
A.133.	Brian O'Rourke	Country Pavilion, South Bank Exhibition	Canvas Louvers	K.17.
A.134.	Brian O'Rourke	Country Pavilion, South Bank Exhibition	Glass & Canvas Screens	K.17.
A.135.	Maxwell Fry & Jane Drew	Harbour Bar, South Bank Exhibition	Wall Construction	K.2.
A.136.	Maxwell Fry & Jane Drew	Harbour Bar, South Bank Exhibition	Structural Details	K.4.
A.137.	Maxwell Fry & Jane Drew	Thameside Restaurant, South Bank Exhibition	General Details	K.17.
A.138.	Maxwell Fry & Jane Drew	South Bank Exhibition	Tower Details	K.6.
A.139.	Edward D. Mills	Administration Building, Downstream Section, F.O.B.	Staircase	K.7.
A.140.	Edward D. Mills	Administration Building, Downstream Section, F.O.B.	Wall Details	K.2.
A.141.	Design Research Unit	Regatta Restaurant, Upstream Section, F.O.B.	Stanchion & Lamps	K.17.
A.142.	Design Research Unit	Regatta Restaurant, F.O.B.	Double Hung Sash Windows	K.6.
A.143.	Basil Spence & Partners	Sea & Ships Pavilion, Upstream Section, F.O.B.	Display Panels	K.17.
A.144.	Architects Co-operative Partnership, Ove Arup & Partners, Engineers	Upstream Section, F.O.B.	Aluminium Bridge	K.17.
A.145.	Architects Co-operative Partnership	Upstream Section, F.O.B.	Belvedere Road Control Point	K.17.
A.146.	Jack Howe	South Bank Exhibition	Standard Litter Bin	K.15.
A.147.	Leonard Manasseh	'51 Bar, South Bank Exhibition	Coffered Wall Panel	K.2.
MISCELLANEOUS L.				
A.103.	Powell & Moya	Houses in Chichester	Entrance	L.5.

A Folder for holding Architect and Building News Detail Sheets may be obtained from the Publishing Department, Architect and Building News, Dorset House, Stamford Street, S.E.1. PRICE 5/-.

**CARRON STEAM JACKETED PAN (P.40)**

Cast iron outer pan with stainless steel or cast iron inner pan • Hinged cover fitted with heavy gun metal hinges and counter balance weight behind pan ; lifting handle with bakelite grip to keep hand clear of vapour when opening • Outer casing can be of sheet steel vitreous enamelled or stainless steel dull polished • Fitted with heavy gun metal draw-off cock with full-way cleaning screw, steam inlet valve and mounted on heavy cast iron pedestal base • Made from 10 to 100 gallons capacity. Write for technical details and prices.

This is a Carron product made by modern Carron processes embodying the Carron tradition for fine workmanship begun in 1759.



CARRON COMPANY • CARRON • STIRLINGSHIRE

Showrooms : 15 Upper Thames St., London, E.C.4. 22-26 Redcross St., Liverpool, 1
125 Buchanan St., Glasgow, C.I.

CONSTRUCTIONAL ENGINEERS

STEEL FRAMED BUILDING SPECIALISTS

WAREHOUSES
GARAGES
GANTRIES
BUNKERS
CONVEYORS
—
GUTTERS
ETC.



GIRDERS
PLATEWORK
—
WELDED
RIVETED
OR
BOLTED
CON-
STRUCTION

WALKER BROTHERS LIMITED

VICTORIA IRONWORKS

WALSALL

ENGLAND

Telegrams : WALKERS, WALSALL.

London Office : 66, Victoria Street, S.W.1.

Telephone : WALSALL 3135, 3137, 3138, 3139.

Telephone : Victoria 6049.

HIGHER TECHNOLOGICAL EDUCATION IN BUILDING

Recently it was announced that the Government propose the formation of a Royal College of Technological Education.

"There is an urgent need for a wide development of technological education in this country if Gt. Britain is to maintain its place as a leading industrial nation." This is the view of the National Advisory Council on Education for Industry and Commerce whose first report was published recently ("The Future Development of Higher Technological Education," H.M. Stationery Office, price 1/- net).

The main recommendations of the Council are: (i) the establishment or development of courses of a high standard in technology; (ii) the creation of new awards of degree standard; (iii) the establishment of a Royal College of technologists to approve such courses and confer the awards.

The Council was set up in 1948 by Mr. George Tomlinson, the Minister of Education, and its main task was to suggest how the contribution of the Technical colleges could be improved and expanded to meet not only the needs of industry but also those of the individual student. The views of 145 different bodies have been considered by the Council, and in a Foreword to the Report, the Minister states that before taking any decision on the recommendations he will welcome and consider any comments made to him.

Following is an article, discussing the significance of the proposals, written by T. E. Scott, F.R.I.B.A., Principal of the Northern Polytechnic.

The issue of a White Paper setting forth Government policy for the development of Higher Technological Education is an occasion for reviewing the present position in building education and the needs for future development. The Paper itself is confined to generalities which need not be discussed here; it will be of greater advantage to consider whether the establishment of a Royal College of Technologists can have a beneficial effect on the building industry.

It is not without significance that, in spite of the fact that the industry is one of the largest and most important in the country, building is not included in a list—admittedly short—of particular fields in which post-graduate courses are thought desirable. In spite of the valuable work which has been done by the technical colleges and two University courses, the building industry has never reached the same educational level as the various fields of engineering. It would be interesting to know how many senior personnel of the industry have had a technical training comparable with that of the civil, mechanical or electrical engineer.

Without being in any way critical of technical colleges it might be submitted that there are no building courses comparable with those in other industries and the major professions. The Institute of Builders, with its system of membership by examination, encourages a measure of systematic training, but it is mostly part-time and therefore offers neither opportunity nor encouragement for the post-graduate study available to most other professions and industries. It is a striking fact that except in the case of craftsmen and apprentices, most of the teaching of the personnel of the building industry is undertaken by men who have been trained as architects, engineers or surveyors.

But in reviewing the present position it must not be overlooked that building, in its broadest sense, includes the work of the architect, structural engineer, and quantity surveyor; it is sometimes argued that building education should properly include the training of those who are often referred to as the professional side of the industry.

The architect and the structural engineer may be trained to "first award" level and opportunities are available to both for post-graduate study. The quantity surveyor, in a few cases, is trained to "inter" level but completes his training by office experience and part-time or correspondence study. These systems of full-time study are only possible because the professions are prepared to offer employment on a reasonable basis to those who complete a course of study. There is at present no evidence that the building industry is anxious, or even willing, to recruit into posts offering appropriate opportunities those men who might complete a course of full-time study to "first award" level.

If the establishment of a Royal College of Technologists is to benefit the building industry, it must be for the industry itself to take a real and sustained interest in the training of those who are to become its leaders or occupy the more responsible positions. Given this essential condition there would be a case for the development of a limited number of technical college courses to "first award" level. These must be at colleges where facilities and amenities, and above all atmosphere, are appropriate to advanced study, and preferably where other students are being trained for the associated professions. It is possible to over-estimate the benefits to be derived by architects, surveyors and builders being trained side by side; it is probably only in the more senior years that students are able usefully to discuss their problems with one another; but the setting-up of post-graduate courses, particularly for graduates who had spent two years or so in industry or a profession, would afford opportunities for "combined operation" research and study which all parties to building so greatly need. Indeed, the existence of well-staffed and

equipped colleges would make possible the holding of refresher courses for the study of new techniques and materials which would not come amiss to many senior men. It is only necessary to refer to the recent Building Research Congress to demonstrate the advantages of such co-operative study.

The Royal College of Technologists would not appear directly to affect the training of craftsmen and the rank and file of the industry. It would of course provide the final stage in the promotion for those of outstanding ability, but of far greater consequence would be the creation of a body of building technologists from which might be recruited those who would assist in the training of the skilled personnel of the industry.

The Government proposals will not impose educational advantages upon an unwilling industry, but it may well provide the incentive and opportunity for the industry to create an educational system worthy of its great traditions and commensurate with its opportunities to serve the community.

DOMESTIC HEATING

So far as domestic heating systems are concerned the supply of electricity must, for a time, be circumscribed, but the tendency to condemn the use of it at all for certain purposes is unrealistic. The answer may be a combination of two or more available sources of power, such as smokeless solid fuel and electricity, or smokeless solid fuel and gas as well as electricity, and so on. Following are points from an article in which Mr. A. C. Hazel, managing director of Hursel, Ltd., discusses the problems and offers some solutions. In view of the Minister of Fuel's recent statements, quoted in the Press, that electric fires "were beyond question" the major cause of power cuts, this article provides food for thought.

The chief factor in providing home comfort is to take and keep the chill out of the house by some form of continuous heating, which it is relatively easy to "top up" as and when required; once the chill has been "taken off" it is comparatively simple and inexpensive to keep the house warm. Nevertheless, it is invariably both difficult and costly to deal with the initial warming-up period. The problem therefore is to select the fuel most suitable for "taking the chill off."

It is doubtful whether we shall achieve overall efficiencies of more than 35 per cent in the use of electricity for space heating, but to-day efficiencies approach 80 per cent where smokeless solid fuel is used in domestic boilers and the hot water so produced is used for central heating. It follows that perhaps the most efficient thing to do is follow that part of the recommendations of the Simon Committee's report which advocated smokeless solid fuel for the main winter space and water heating, with electricity to supplement, but not "top-up," the load.

There is no suggestion that electricity should be used to cover cold spells only. Thus, in a middle-class home, a domestic boiler might be used for heating water in winter for baths, washing clothes, dishes, etc. The same boiler, which should be rated at about 45,000-50,000 B.Th.U./hr, would

also heat, say, four radiators to provide sufficient warmth to "take the chill off" and maintain the main living rooms of the house at a reasonable temperature throughout the winter. This boiler should be placed in such a position that the heat emitted is usefully retained in the living spaces.

A boiler rated at 50,000 B.Th.U./hr is of a size that can operate efficiently whether on the hot water load only, or both hot water and partial central heating, whereas a boiler big enough to provide complete central heating throughout the house with, say, ten radiators would operate at a lower efficiency when on hot water supply only.

The hot water radiators can be placed in the main downstairs living rooms and, if the boiler is thermostatically controlled, the temperature in these rooms can easily be maintained at 65 deg F. A smokeless fuel open fire can be used for its attractive appearance and "topping up" while, if the living room is unduly large, thermostatically controlled electric "oil-filled" radiators with a high thermal carry-over might also be installed.

In the principal bedrooms, nurseries and any rooms not regularly used, thermostatically controlled "oil-filled" electric radiators can be installed which are totally enclosed and therefore per-

fectly safe, a most important feature. They need not be switched on until after the evening peak and they will be switched off before the morning peak. Moreover, the temperature required in these rooms would be only about 55 deg F instead of the 65 deg F provided by the boiler. The use of load controlling devices, such as ripple relays or time switches, under the Electricity Board's seal, for heaters of this kind would prevent misuse.

However, it must be borne in mind that in a house in which the chill has been taken off by hot water radiators, the walls retain some heat and the thermal carry-over of electric "oil-filled" radiators in a well-insulated house can be anything up to an hour. In other words, radiators of this type might well be used continuously, if need be under load control, being switched off only during the period of the peak, which in present circumstances would be on the predetermined day of the week advertised by the Electricity Board, without any undue inconvenience to the occupants.

From the long-term angle, "switch-off-switch-on" control covering all domestic power appliances and therefore space heating in particular, can be used in a way that will cause wide diversity between the incidence of loads under such control. In other words, it should be possible for "switch-off-switch-on" control in one town to remove the domestic power load for, say, the first hour and then for the second hour in another town and so on. Thus by the judicious use of controlling devices a remarkably high load factor, coupled with a very good diversity factor, should be obtainable.

If load controlling devices were used on the sort of scale suggested above it would be necessary to revise the present method of charging for electricity and to go back from the two-part tariff to a high kWh charge for electricity for lighting which is the main cause of the evening peak due to overlapping the factory load. But consumers using electricity under "switch-off-switch-on" control would expect to purchase their electricity at appropriately attractive rates.

The whole point is that lighting, which cannot possibly be switched off under load control without causing danger and an enormous amount of inconvenience—in fact a breakdown of the life of the nation if it should happen during the hours of darkness—would be safeguarded and, because of this assurance, the consumer should pay its correct proportionate cost. In other words, the standing charges for electricity generation should be borne largely by the lighting load.

As a fire preventive measure, too, the answer seems to be to develop totally enclosed electric space heating appliances of low surface temperature, such as the "oil-filled" radiator which is constructed of heavy gauge steel and totally enclosed, therefore completely safe, designed as a fixture to the wall or floor, or moveable.

Where a modicum of central heating by smokeless solid fuel is used, particularly where "oil-filled" radiators are installed for keeping the house warm overnight, the tendency to switch on the electric fire at breakfast time is completely nullified because householders wake up in warm rooms.

Commercial premises might be pre-heated under control, which would bring the space heaters in at, say, 5.30 a.m. and switch them off during the morning peak.

Some may argue that the cost of continuous heating with a combination of electricity and smokeless solid fuel is excessive in existing poorly insulated homes. One important fact emerged from

the Abbots Langley heating experiments: it is that the householder uses only the heat he thinks he can afford, though it is true to say that as one's appreciation of heat comfort increases one is prepared to pay a little more for it, and perhaps economize in other directions.

In the case of the middle class market, which is only a small proportion of the total market, it is possible to provide comfortable conditions day and night, and during winter, with a fuel consumption of 1½ cwt of smokeless solid fuel and an electricity bill (when electricity is used for a refrigerator, including a deep-freeze, washing machine, table ironer, part cooking, electric circulator and many small appliances) of under 15s a week in winter where the running charge is 1d/kWh.

It will, of course, be argued that a fuel bill of over £1 a week is beyond the reach of countless millions, but it is surely possible, where electricity is taken mostly under "switch-off-switch-on" control, for the running charge to be only ½d or ¾d/

kWh, though the lighting charge will be very much higher. The cost of the load-controlling device could be charged to the consumer in, say, four quarterly payments. The argument is that the consumer would enjoy a lower tariff as the result and therefore could probably be persuaded to pay for, or rent, the load controller. Incidentally, the change over to control could be gradual and the idea could be sold to the public on the score of a more economical tariff. At a later stage one could persuade more of the public to go over to "switch-off-switch-on" control by manipulating the tariffs. Manufacturers of space and water heating appliances could also help in selling the idea to the public.

From the national angle off-peak space and water heating would slowly develop to the advantage of the national load factor. We must fill in the valleys as we solve the peaks. The public would gain in increased convenience and economy. The country would gain by having a happier and healthier population.

Some Thoughts on the Revision of the MODEL BY-LAWS

By C. Roland Woods, LL.D.

The general oversight of building by-laws has passed from the Ministry of Health to the newly formed Ministry of Local Government and Planning, and this latter Ministry has appointed a committee to revise the model by-laws which the Government publishes as a guide to local authorities in the formulation of their own by-laws.

It must always be remembered that in this country, as in practically every other country, the control of building is a function of local government and not of the state. In our own country the reason can be traced back to the eleventh and twelfth centuries, when the control of building was mainly concerned with the prevention of fires and was of purely local interest. Since that early date the scope of local government has grown and expanded, but cities and towns have continued to cling tenaciously to those age-old rights in the matter of their own buildings. There are many who consider that building by-laws should be made and administered by the State, but the balance of public advantage lies so strongly with the present method that it is scarcely likely to be changed so long as the principles of democracy hold sway. There are then in Britain some seventeen hundred local authorities which are autonomous in that they are responsible for their own building by-laws and the administration of them.

The local government powers to do these things derive from the Public Health Act of 1936 which contains an important clause requiring the local authority to submit their by-laws to the responsible minister for his approval before they can become law; another important clause requires the local by-laws to be reviewed and, if necessary, revised every ten years.

These two clauses enable the Minister of Local Government and Planning to do two things: (1) he can and does insist that the by-laws throughout the country (excluding London) are reasonably uniform; and (2) he can ensure that the by-laws are up to date. It is with a view to these two duties that the Ministry publishes a series of model by-laws as a guide to the local authorities in framing their own by-laws for their own administration. Thus the model which the Ministry com-

mittee is now revising is a most important instrument to the whole building industry.

It is well, in considering these by-laws, to remember that architects, engineers and builders have a strong tendency to regard all building by-laws as restrictive and a hindrance to development, but this is definitely not the case. By-laws made under the aegis of the Ministry have always been as reasonable and flexible as circumstances would permit. The origin of the somewhat ill repute of building by-laws in general probably lies in the fact that until 1935 building construction in London was controlled by a rigid and narrow Act of Parliament and not by by-laws at all, with the result that flexibility in building technique except in so far as it might be admitted by the exercise of powers of waiver in individual cases, was severely restricted.

It is to be hoped that the Minister's committee will give the maximum emphasis to the fact that building technique has undergone more rapid and more extensive development during the last fifteen years than in any previous epoch. Clear evidence of this has been given in the proceedings of the Building Congress. Four main causes may be cited as giving rise to this development: (1) the improvisations made necessary by war conditions; (2) the introduction of new materials and methods which has stemmed from economic stringency arising out of war; (3) the advances in scientific development which have swept through the architectural and engineering professions; and last but not least (4) the outstanding pioneer work of the Building Research Station.

It is not unreasonable to ask the committee to direct their attention to the need to consolidate and encourage these advances in building technique both in the interests of efficiency and of economy; fortunately this end can be quite adequately secured by a simple adjustment of the by-laws and there is adequate precedent for mechanism to secure this end. Briefly, this would entail the incorporation of a standard of performance in the mandatory clause of a by-law leaving the architect or engineer or builder to obtain this standard of performance by any means

whatever that will satisfy the local authority.

There are, of course, many builders to whom a by-law requiring merely a standard of performance would be of little practical value; they require a more precise and tangible guide. Builders who have experience in London are particularly liable to depend upon technical instruction in their by-laws because in the normal way this work would be largely done under the London County Council by-laws, which often take the form of specifications.

The problem was to some extent solved by the introduction into the Ministry of Health model of 1938 of a sub-paragraph to certain by-laws citing methods of doing the work which would satisfy the by-law itself without being compulsory. The following instance will illustrate this:—

By-law No. 29 in the 1938 model says:

"(1) Every part of a wall with a structural framework of steel, iron or reinforced concrete shall be so constructed that—

- (a) the wall shall be capable of safely sustaining and transmitting the dead loading and the superimposed loading to which it may be subjected calculated in accordance with the First Schedule to these by-laws [Schedule of loadings] so far as it is applicable, and the horizontal and inclined forces to which it may be subjected, without undue settlement or deflection and without exceeding the appropriate limits of stress for the materials of which it is constructed;
- (b) the wall shall be durable;
- (c) the wall shall possess a degree of fire-resistance appropriate to the purpose for which the building is intended to be used;
- (d) the spaces of the framework shall be filled with panels of, or externally covered with, hard and incombustible material which shall be properly secured to the framework, and where the wall is an external wall, be reasonably weatherproof."

This is the actual by-law governing the construction of steel and reinforced concrete buildings. It requires a standard of performance which the builder must attain to the satisfaction of the local authority, but it does not go into technical details as to the precise means by which that standard is to be attained. It leaves the skilful engineer free to exercise his ingenuity in the interests of efficiency and economy. But it was clear to the committee that assisted in the production of the 1938 model that there would be many builders to whom precise instructions would be of the greatest value, so the by-law goes on to cite approved and well-authenticated specifications or codes of practice which could be used as accepted methods of carrying out the standard of performance required in the mandatory clause of the by-laws if the builder wished to use them.

Thus, there is a subsidiary, permissive clause to the by-law which says (for example) in the case of a reinforced concrete building:—

"(3) Where the framework is of reinforced concrete, the requirements of this by-law, so far as it relates to the framework, shall be deemed to be satisfied, as regards structural stability and durability, if every element of the framework is designed in accordance with the Report of the Reinforced Concrete Structures Committee of the Building Research Board, dated July, 1933."

This Report is, of course, a "Code of

BUILDING EXHIBITION 1951

The Building Exhibition at Olympia this year is to be bigger than ever and with some 425 stands it is inevitable that the visitor who arrives without some advance information should miss exhibits of interest.

On November 8 there will be a special advance number of the *Architect* and *Building News* dealing with the exhibition. In the collation of this issue intending Exhibitors have collaborated to provide advance information on new products or products which are shown for the first time at the Building Exhibition.

The issue of November 8 will be followed by a further special issue on November 17 reviewing the exhibits. Both issues will be available on the A. & B.N. stand No. 142.

Practice" and it has recently been superseded by Code of Practice No. C.P. 114 "Structure use of Normal Reinforced Concrete in Buildings" issued by the Council for Codes of Practice. There are now more than a hundred codes of a cognate nature available and some four-hundred British Standards dealing with building subjects.

One hopes that all these will be taken into review by the committee now sitting and that in every case where it is at all possible they will frame their mandatory by-laws to require standards of performance only, and append to each such by-law a permissive clause citing the appropriate code or standard for the guidance of those builders who need it.

It is necessary in present-day building practice to have some knowledge of the Codes of Practice which have been prepared during the last seven years by the Council for Codes of Practice for Building. The Council is an independent voluntary body operating under the aegis of the Ministry of Works. The Council includes representatives of fourteen professional institutions associated with the building industry who have agreed to pool their knowledge and experience in the preparation of codes of good building practice. These institutions have been working together successfully and their programme of two-hundred codes is nearing completion.

The scheme of codes divides itself into (1) a Code of Functional Requirements of buildings considered quite irrespectively of the materials of which they are constructed or the method of construction used, and (2) a General Series of Building Codes dealing in detail with the carcass of the building, building finishes and the installation of drainage, water, gas, electricity and other services. The Code of Functional Requirements of buildings is divided into ten chapters and has been drafted by *ad hoc* committees of experts working under the direct guidance of the Council for Codes of Practice. The General Series Codes have been drafted by committees of the Institutions particularly interested in the subject matter under review with the wholehearted collaboration of the other Institutions. As is to be expected, some of the codes deal with subject matter which has for many years been controlled in one way or another by by-laws and regulations under the various Public Health Acts. These Codes presented relatively few and relatively simple problems in drafting and were consequently dealt with reasonably quickly. Examples are the steel and reinforced concrete codes and the functional chapter on Loading. Others dealt with subject matter which had never been codified in any precise way before and consequently their

compilation was less speedy and quite often involved research. Such codes are, for example, those dealing with Ashlared Masonry Walls and Painting.

A review of the whole series of Codes of Practice presents two important considerations: (1) that the Committee reviewing the Model By-laws can scarcely fail to find in the Codes an adequate treatment of any subject matter that calls for their attention, and they can be assured that the Codes represent the best advice of the foremost technical experts in each subject fortified by nation-wide comment on every feature in every code; and (2) that the Codes will provide adequate and well-authenticated data to facilitate the interpretation of most of the disputed points in the by-laws that will arise in the course of their administration.

It is, of course, impossible in a short space to present an adequate review of the whole scheme of codes, but there are two which are well worth consideration in connection with the new by-laws: they are the Chapters of the Code of Functional Requirements of Buildings dealing with Thermal Insulation and Sound Insulation.

Whether these two subjects can be regarded as coming within the ambit of the building by-laws permitted under Section 61 of the Public Health Act of 1936 is a matter for the lawyers to decide, but it is quite clear that thermal and sound insulation depend upon "the materials to be used in the construction of buildings" and to this extent are on a level with "fire resistance" which is, of course, regarded as a proper subject for building regulation.

In any case the need for economy in fuel, which is, one fears, with us for all time, would appear to make the problem of thermal insulation nationally important, and the prevalence of sound transmission between flats as an "Amenity problem" with a definite relationship to health certainly merits attention. One might, without too much presumption, suggest that the Minister's Committee make a study of these two codes to determine whether they provide material suitable for a general by-law or, alternatively, for model by-laws of a kind that are not on the same official plane as the rest of the Model, but could be adopted by local government authorities in districts when the need for thermal and sound insulation are recognized as serious problems. Such by-laws would not need to define anything more detailed than a standard of performance.

Finally, one is impelled to ask the Committee to consider how best to let the whole building world know what new or improved materials and methods of building have been permitted by competent local authorities within the structure of "performance" by-laws or otherwise.

The London County Council has found the solution to this problem. The Council admits appropriate variations of its by-laws by the exercise of its powers of waiver; and the waivers thus granted are entered in a book at County Hall which is always open to the public to inspect. Thus any architect, engineer or builder is able to ascertain what waiver has been granted in a particular case and can make up his mind whether to apply for a similar waiver himself and in what terms.

A national "book of waivers" showing what new methods have been accepted within the scope of by-laws based on the Model or under Section 63 of the Public Health Act would be of assistance to all builders and the Minister might consider having all such cases reported to him and publishing them.



Mr. and Mrs. E. K. Cole greeting Mr. Wells Coates, O.B.E., R.D.I., F.R.I.B.A., at the private party given by Mr. Cole at the Savoy Hotel on October 2, as part of the Company's Silver Jubilee Celebrations.

News of the BUILDING INDUSTRY

(Continued from 437)

NEW CONTRACTS valued at £56,000 have been placed by Lanarkshire County Council for the new town of East Kilbride. The Murray site will be handled by Murdoch Makenzie, Ltd., Motherwell, to a value of £30,000 and the Westwood site by James Ritchie (Builders), Ltd., Uddingston, to £26,000. Rapid progress is being made here with the road system, working in advance of the development of the town proper.

THE BUILDING ALLIANCE GOLFING SOCIETY Autumn meeting was held on the two courses of the Berkshire Golf Club on September 27. About 60 members were present.

The "Builder" Trophy was won by Mr. J. Ashton with a net score of 68. Other prize winners were: Singles: 1st A. J. Carr—76, 2nd H. V. Mabey—77, 3rd G. Mansell—78. Fourball Foursomes Stableford: 1st F. Pavletich and P. Hickey—40 points, 2nd R. T. Warren and C. G. H. Stevens—40 points. Members of the Society are reminded that the first post-war dinner is to be held at the Trocadero Restaurant on Friday, November 30. Tickets can be obtained from the Hon. Secretary up to November 16.

HARD WORK, SKILL AND ENTERPRISE are the foundations on which Mr. Eden bases his claim, made in his election address at Warwick last week, that the building of 300,000 homes can be achieved.

Mr. Eden said "We will work towards this figure as fast as re-armament allows... we shall encourage the payment of extra rewards for skill and energy among building workers and progressively reduce restrictive licensing, but not so as to allow luxury or jerry building."

BUILDING WORK IN GLASGOW during the past year reached a record figure at £15,369,918 according to the Dean of Guild Court. This is the highest amount of new authorized work ever recorded in one year.

M.O.W. LECTURES

Certain lectures in the winter programme have been cancelled as the accommodation is required for election purposes. It may be necessary to cancel further lectures and readers intending to be present are advised to contact the appropriate Regional Office of the M.O.W. to confirm that the lecture is being held.

OCTOBER 22

SOUTHAMPTON at 7.30 p.m. "PRE-STRESSED CONCRETE," by O. J. Masterman, B.Eng., A.M.I.C.E., A.M.I.Struct.E., of Building Research Station, in the Conference Room, Civic Centre.

OCTOBER 23

PLYMOUTH at 7 p.m. "SITE INVESTIGATION," by N. W. B. Clarke, M.Eng., M.I.C.E., M.I.Struct.E., of Building Research Station, at the City Museum and Art Gallery, Tavistock Road.

OCTOBER 24

MANCHESTER at 7.15 p.m. "PAINTING TRADITIONAL BUILDINGS," by T. A. Baker, Building Research Station, Department of Scientific and Industrial Research, in the Lecture Theatre, Gas Showrooms, Albert Square.

OCTOBER 29

TAUNTON at 7 p.m. "ALUMINIUM ALLOYS IN BUILDING," by E. I. Brimelow, M.Eng., A.I.M., A.I.Mech.E., Building Research Station, Department of Scientific and Industrial Research, at the Municipal Hall.

OCTOBER 30

CARLISLE at 7 p.m. "MODERN SITE ORGANIZATION," by J. C. Morgan, Regional Technical Information Officer, Ministry of Works, at Creighton School, Strand Road.

RUGBY at 7.15 p.m. "ESSENTIALS OF GOOD CONCRETING," by E. Woodwork, B.Sc., Cement and Concrete Association, at the Technical College, Eastlands.

AN INVESTIGATION into the possibility of ill health arising from the welding process has been carried out by the Factory Department of the Ministry of Labour and National Service and the results have been published in a book ("The Health of Welders," by A. T. Doig, M.D., D.P.H., H.M. Medical Inspector of Factories, and L. N. Duguid, B.Sc., A.M.I.(Mech.)E., M.I.W., H.M.S.O., or through any bookseller price 3/- net, post free).

The investigation consisted of a survey of the various types of welding followed by clinical examination of some 250 welders in different industries. The main conclusions are that welders do not suffer from any specific disease nor does occupational dermatitis appear to be a frequent or serious cause of disability. Electric welders suffer to a greater extent than other workers from a slight superficial inflammation of the eyelids. Some general recommendations are made but it is pointed out that as the main risk of ill health amongst welders is due to fumes, the remedy is ventilation. As there is such a wide variation in the different welding processes, it is considered that the problems of each firm will have to be looked at individually.

IN THE NORTH OF SCOTLAND Hydro areas native stone—neglected for years—is again becoming an economic proposition and actually cheaper to use than bricks which have to be imported at considerable transportation cost to these more isolated areas. The Secretary of State for Scotland has indicated that he is prepared to allow authorities to build in stone even if at a higher cost than brick, to utilize such labour as may be available.

SUNVIC CONTROLS LIMITED announce that as from Monday, October 15, the Sales Department will be situated at 132/135, Long Acre, London, W.C.2. (Telephone No.: TEMple Bar 9591), to which address all orders and enquiries should be sent.

A BRITISH STANDARD FOR ATMOSPHERE POLLUTION DEPOSIT GAUGES (B.S.1747:1951) has been prepared, on the suggestion of interested authorities, in the hope of aiding the work of combating the national problem of atmospheric pollution, since serious damage may be caused, especially in industrial areas, by gases and solids emitted into the atmosphere from domestic fires, other fuel-burning devices, burning spoil banks, engine exhausts and many manufacturing processes.

The Standard covers the construction, installation and use of the deposit gauge for the collection and measurement of atmospheric impurities that are deposited by their own weight or with the assistance of rain.

It is hoped that the gauge will prove convenient for use by technical colleges and similar institutions in order to promote widespread knowledge of the extent of atmospheric pollution and to provide essential data for general correlation, thus leading to effective smoke abatement.

Copies of this Standard may be obtained from the British Standards Institution, Sales Department, 24, Victoria Street, London, S.W.1. Price 2s 6d post free.

Notes below give basic data of contracts open under locality and authority which are in bold type. References indicate: (a) type of work, (b) address for application. Where no town is stated in the

CONTRACT • NEWS •

OPEN

BUILDING

ALTRINCHAM B.C. (a) New clubhouse at Municipal Golf Course, off Stockport Road. (b) Borough Surveyor, Town Hall. (c) 2gns. (e) Oct. 30.

BARROW-IN-FURNESS B.C. (a) South Newbarns infants' school, Lesh Lane. (b) Borough Engineer, Town Hall. (c) 2gns. (e) Nov. 8.

BECKENHAM B.C. (a) 2 blocks of 4 maisonettes, Parish Lane, S.E.20, and 1 block in Linden Grove, S.E.26. (b) Borough Engineer, Town Hall. (c) £2 (s) Nov. 2.

BIDEFORD B.C. (a) 1 pair of houses, Pynes Lane Estate. (b) Borough Surveyor, Municipal Buildings. (c) 2gns. (e) Oct. 30.

BOOTLE B.C. (a) Scheme No. 22 (f) 18 dwellings and Scheme No. 22 (g) 10 dwellings, Sterrix Lane. (b) Borough Surveyor, Town Hall. (c) 2gns each contract. (e) Oct. 26.

BOURNEMOUTH B.C. (a) Police house at Castle Lane, a house at Wordsworth Avenue, and a house at Castle Lane. (b) Borough Architect (Room 101), Town Hall. (c) 2gns. (e) Oct. 27.

BUCKS C.C. (a) Erection of the second phase of new college of further education at High Wycombe. (b) County Architect, County Hall, Aylesbury. (d) Oct. 26, with details of organisation and labour, etc. (e) Dec. 6.

CHERTSEY U.C. (a) Contract No. 32. 10 houses, outhouses, paths, etc., Conquest Road, Addlestone. (b) Engineer and Surveyor, Council Offices. (c) 1gn. (e) Oct. 31.

CLUN R.C. (a) Conversion of Aston Hall and outbuildings at Aston-on-Clun, nr. Craven Arms, into 10 units of accommodation also construction of new drainage system and sewage disposal works. (b) Council's Clerk, Council Office, The Square, Bishops Castle. (c) 2gns. (e) Nov. 1.

CROSBY B.C. (a) Public lavatories on a site at Moor Lane By-Pass Road, Great Crosby. (b) Borough Engineer, Town Hall, Waterloo, Liverpool, 22. (c) 2gns. (e) Oct. 31.

DURHAM COUNTY POLICE AUTHORITY. (a) 2 pairs of police houses on the second phase of Axwell Park, Swalwell. (b) Police Authority Architect, Court Lane. (e) Oct. 26.

EAST SUSSEX C.C. (a) Additional classrooms, cloakrooms and lavatories, etc., at Three Bridges Primary School, North Road. (b) County Architect, County Hall, Lewes. (d) Oct. 25. (e) Nov. 28.

ECCLES B.C. (a) 10 shops with living accommodation above on the Ellesmere Park Estate. (b) Borough Engineer, Town Hall. (c) 2gns. (e) Nov. 5.

address it is the same as the locality given in the heading. (c) deposit, (d) last date for application, (e) last date and time for submission of tenders. Full details of contracts marked ★ are given in the advertisement section.

BRIGHT'S ASPHALT

THANET WHARF,
COPPERAS ST., DEPTFORD,
S.E.8

MULLEN AND LUMSDEN

LIMITED

Contractors and
Joinery Specialists

41 EAGLE STREET, HOLBORN,
LONDON, W.C.1

Telephones: LONDON: CHAncery 74227/4, CROYDON: ADDiscombe 1284

PAVING TIMBERS and SLEEPERS

Large quantities of Secondhand Wagon Headstocks and Solebars, 7ft. Bins, and 14ft. 6ins. approx. by 12in. x 5in., sound oak, with usual holes, suitable for temporary roadways, packing timbers, sleepers, etc.

AVAILABLE SHEFFIELD, YORKS OR
GLASGOW DISTRICTS

PRICES FOR QUANTITIES ON APPLICATION to—

THO^S W. WARD LTD.

Wagon Dept.

ALBION WORKS SHEFFIELD

'Phone: 26311 (22 lines)

Ext. 333

There has been a "Stannah" in the industry since 1867

STANNAH LIFTS

LIMITED

PASSENGER, GOODS AND SERVICE LIFTS
49-51, TIVERTON STREET, LONDON, S.E.1
Telephones: HOP 1211-3063

CHAIRS OF SUPERIOR QUALITY

CHEAP Chairs for Canteens,
British Restaurants, Halls,
etc. Personal attention given to
all Orders.

Mealing Bros. Ltd.

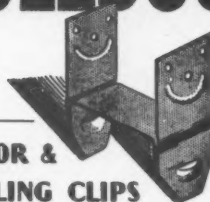
Avenue Chair Works,
West End Road,
High Wycombe.

Telephone: Wycombe 499.

Catalogue on
application



BULLDOG



FLOOR &
CEILING CLIPS

Standard and Acoustic



THE ADAMITE
COMPANY LTD
MANFIELD HOUSE, STRAND, W.C.2

DENNISON KETT & CO. LTD.

ROLLING SHUTTERS

& GRILLES · IRON DOORS
STAIRCASES · LIFTS
COLLAPSIBLE GATES

KENOVAL HOUSE
226-230, FARMERS ROAD
LONDON, S.E.5. Phone RELiance 4244

HIGH QUALITY WHITE FACING BRICKS

(S.P.W. BRAND)

As supplied to the WAR OFFICE, H.M.
MINISTRY of WORKS, AIR MINISTRY,
Etc.

Sample and Brochure
sent on request

**M. MCCARTHY
& SONS, LTD.**

BULWELL · NOTTINGHAM

ESSEX C.C. (a) Adaptations to "The Pastures," Davies Lane, Leytonstone, to form a Civil Defence Training Centre. Approx. cost £2,500. (b) County Architect, County Hall, Chelmsford. (d) Oct. 27.

ESSEX C.C. (a) Junior school, Oakdale Road, Woodford. Approx. cost £50,000. (b) County Architect, County Hall, Chelmsford. (d) Oct. 27.

FARNHAM U.C. (a) 28 houses, Heath End Estate Extension. (b) Messrs. G. Maxwell Aylwin, 26, West Street. (c) £2. (e) Oct. 30.

GRAZELEY (Berks). (a) Village hall, Bloomfield Hatch Lane. (b) Messrs. Chas. Smith and Son, 164, Friar Street, Reading. (c) 2gns. (e) Oct. 26.

GUILDFORD B.C. (a) 54 houses, Bushy Hill, Merrow. (b) Borough Engineer, Municipal Offices, High Street. (c) 2gns. (e) Oct. 30.

GUILDFORD R.C. (a) Block of 4 bungalows, 4 blocks of 4 flats and a block of 4 cottages, at Georgelands, Ripley. (b) Engineer and Surveyor, Millmead House. (c) 6gns. (e) Nov. 7.

HAMPSHIRE C.C. (a) Library at Aldershot. (b) Messrs. Maxwell Alwin and Reginald Kemp, Market Chambers, High Street, Alton. (c) 1gn payable to County Treasurer. (e) Oct. 30.

HAMPSHIRE POLICE AUTHORITY. (a) Police house with office at (1) Bishop's Waltham, (2) Colden Common, near Winchester, and (3) Stroud, near Petersfield. (b) County Architect, The Castle, Winchester. (c) 1gn payable to Treasurer of Hampshire Police Fund, in each case. (d) Oct. 25.

IPSWICH B.C. (a) Contract No. 1, 56 flats. Contract No. 2, 18 houses. (b) Borough Surveyor, 19, Tower Street. (c) 3gns. (d) Oct. 24. (e) Nov. 29.

KINGSBRIDGE U.C. (a) 20 houses, Rack Park Estate. (b) Engineer and Surveyor, Council Chambers. (c) 2gns. (e) Oct. 31.

LEEDS C.C. (a) Children's home at Raynell Drive, Ireland Wood, Cookridge. (b) City Architect, Priestley House, Quarry Hill. (c) 1gn. (e) Nov. 2.

LLANIDLOES B.C. (a) Public Mortuary. (b) Borough Surveyor, Town Hall. (c) 2gns. (e) Oct. 31.

LONDON—CHINGFORD B.C. (a) Public conveniences adjacent to Manor Hotel, Hatch Lane, E.4. (b) Borough Engineer, Holmleigh, Ridgeway Road, E.4. (c) 1gn. (e) Nov. 2.

LONDON—CHINGFORD B.C. (a) Public conveniences near Royal Forest Hotel, Rangers Road, E.4. (b) Borough Engineer, Holmleigh, Ridgeway Road, E.4. (c) 1gn. (e) Oct. 26.

LONDON—HORNSEY B.C. (a) Scheme No. 42, 16 flats in two four-storey blocks at Lorne Road and Marquis Road, Stroud Green, N.4, and Scheme No. 44, 6 flats in a three-storey block at Wightman Road, N.8. (b) Borough Engineer, Town Hall, Crouch End, N.8. (d) Nov. 12. (e) Dec. 10.

THE MIDLAND
JOINERY WORKS LTD
BURTON-ON-TRENT

The Sign of Quality
One of the best and most
dependable names in Joinery.

THE MIDLAND JOINERY
WORKS LTD.,
BURTON-ON-TRENT
Established 1921. Tel. Burton 3685 (3 lines)

DOMESTIC WATER HEATING

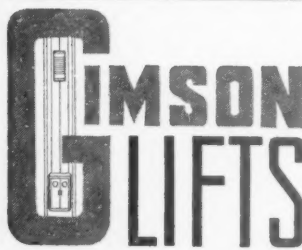
**BASIC ENGINEERING PRINCIPLES
OF ELECTRIC & SOLID FUEL
INSTALLATIONS**

By Ronald Grierson,
M.I.E.E., M.I.MECH.E.

Besides setting out the principles of the subject, this book gives a critical analysis of current practice in the supply of hot water for domestic purposes. The author deals mainly with the combination of an electric immersion heater and thermostat with a conventional hot-water storage tank, in conjunction with a coal- or coke-fired domestic water heater, this being arranged either as a "back-boiler" or as an independent unit.

25s. net. By post 25s. 7d.

Obtainable from all booksellers or direct from:
ILIFFE & SONS LTD., DORSET HOUSE,
STAMFORD STREET, LONDON, S.E.1.



*Service is available
throughout the country*
GIMSON & CO. (LEICESTER) LTD
VULCAN ROAD, LEICESTER

Telephone LEICESTER 60272
Telegrams GIMSON LEICESTER

LONDON—WEST HAM B.C. (a) Contract No. 158, 26 4-storey maisonettes in the Plymouth Road area, E.16. Contract No. 163, 11 3-storey flats and 30 4-storey maisonettes in the Village Street area, E.15. (b) Borough Architect, 70, West Ham Lane, E.15. (c) 2gns each contract. (d) Oct. 26.

LUDLOW B.C. (a) 16 houses, Sandpits Road site. (b) Messrs. S. N. Shrimpton and Son, 5, Castle Street. (c) 2gns.

MAESTEG U.C. (a) 80 houses (whole or groups of 6) on the Turberville site. (b) Engineer and Surveyor, Council Offices. (c) 3gns. (e) Oct. 27.

MIDDLESEX C.C. (a) (1) Superstructure, etc., for Phase II of Bullsmoor Lane primary school, Enfield. (2) Erection of grammar school at The Fairway, Edmonton. (3) Primary school at The Fairway, Edmonton. (b) Chief Education Officer, 10, Great George Street, London, S.W.1. (c) 2gns each contract. (d) Oct. 22.

MORECAMBE AND HEYSHAM B.C. (a) Garage and office block. (b) Borough Surveyor. (c) £1. (e) Oct. 29.

GOVERNMENT OF NORTHERN IRELAND. (a) Erection and completion of a R.U.C. County Station at Galmorg Road, Ballymena, Co. Antrim. (b) Ministry of Finance (Room 103), Law Courts Building, May Street, Belfast. (c) £5. (e) Nov. 2.

NEWCASTLE REGIONAL HOSPITAL BOARD. (a) Alterations and additions to No. 4 Female Ward, Garlands Hospital, for Special Area Committee for Cumberland and North Westmorland. (b) W. J. Ball, Clerk to Committee, 1, Lonsdale Street, Carlisle. (d) Oct. 22.

NEWCASTLE REGIONAL HOSPITAL BOARD. (a) First section of a chest clinic at Workington, for Special Area Committee for Cumberland and North Westmorland. (b) W. J. Ball, Clerk to Committee, 1, Lonsdale Street, Carlisle. (d) Oct. 22.

NORFOLK C.C. (a) First stage of a two-bay fire station at Thetford. (b) County Architect, 27, Thorpe Road, Norwich. (e) Nov. 1.

PLOUGHLEY R.C. (a) 2 pairs of houses and construction of sewers, etc., at Piddington. (b) Engineer and Surveyor, Waverley House, Bicester. (c) £2. (e) Nov. 2.

PORTSLADE-BY-SEA U.C. (a) Section 1: 9 pairs of houses, 2 blocks of 4 houses and 3 blocks of 4 flats. Section 2: 2 pairs of houses, 3 blocks of 4 flats, on the Mile Oak (Valley) site. (b) Messrs. Geo. W. Warr and King, 137, Albion Street, Southwick. (c) 3gns. (e) Nov. 5.

PRESTON B.C. (a) Primary school (Orlit construction) at Larches. (b) Borough Engineer, Municipal Building. (c) £2. (d) Oct. 20, with details of number of extra copies of Bills of Quantities or Trade Sections required, 10s per copy, 2s per section. (e) Nov. 24.

SCOTLAND—FIFE POLICE JOINT COMMITTEE. (a) Sub-divisional police station at Burntisland. (b) Messrs. Robert Galbraith and Lawson, 21, Crossgate, Cupar. (e) Nov. 5.

London's Finest new & secondhand Value ARCHITECTS' PLAN CHESTS



Steel & Wood Office Furniture
Filing Cabinets
Sofas, Chairs, etc.
M. MARGOLIS
378-380 BUSTON ROAD - LONDON - E.W.1. Phone: EUS 1525

QUANTITY SURVEYING

Postal Courses for R.I.C.S., I.A.A.S. and I.Q.S. exams, in all subjects of each syllabus. Tuition by well qualified tutors under the direction of the Principal, A. B. Waters, M.B.E., G.M., F.R.I.B.A. Descriptive booklet on request.

THE ELLIS SCHOOL

1038, OLD BROMPTON RD., LONDON, S.W.7
Phone: KEN 8641 and at Worcester

ENGERT & ROLFE LTD. FELT ROOFING CONTRACTORS

POPLAR, E.14. East 1441

So much depends on your Floors.
Compare the value of "Modernite"

Magnesite Jointless Flooring

MODERN TILE & FLOOR COMPANY LTD
62-62a, Brewery Road, LONDON, E.7
TEL.: NOR 4611-2

The WARRY UNIVERSAL HOIST

WITH AUTOMATIC SAFETY GATES

Designed to comply with the Building Regulations

The Warry Patent Building Equipment Co., Ltd.

FAGGS ROAD, FELTHAM, MIDDLESEX
Telephone: FELTHAM 4057-58

R. Wm. LOCKWOOD

BUILDERS & CONTRACTORS
JOINERY & DECORATORS, Etc.

345 GREEN LANE - ILFORD
Telephone No.: Seven Kings 7551

ENGERT & ROLFE LTD. COPPERTRINDA

The best Dampcourse yet produced

POPLAR, E.14. EAST 1441



INSULATING
BOARD AND
HARDBOARD

Made in Canada

TENTEST FIBRE BOARD CO., LIMITED
78, Grosvenor West, Hadley Wood, Barnet, Herts.
Phone: Barnet 5501 (5 lines).

STOCKTON-ON-TEES B.C. (a) Infants' school at Roseworth, Durham Road. (b) Borough Architect, 28, The Square. (c) 2 Gns. (e) Nov. 12.

SOUTHAMPTON B.C. (a) Health clinic at Sullivan Road, Surrey House Estate. (b) Borough Architect, Civic Centre. (c) £2. (d) Oct. 22. (e) Nov. 16.

SWALE R.C. (a) 14 houses and site works and construction of sewers, sewage disposal works at estate roads at School Lane, Bapchild. (b) Engineer and Surveyor, 48, Bell Road, Sittingbourne. (c) 3 Gns. (e) Oct. 31.

TUNBRIDGE WELLS B.C. (a) Block of 6 flats at St. James' Road. (b) Borough Surveyor, Town Hall. (c) 2 Gns.

WARE R.C. (a) 2 pairs of houses at Widford. (b) Messrs. W. R. Davidge and Partners, 5, Victoria Street, London, S.W.1. (c) 1 Gn. (e) Oct. 30.

WELTON R.C. (a) 8 houses and short length of access lane and 4 houses at Stainfield. (b) Messrs. Wm. Saunders and Partners, 24, Castle Gate, Newark-on-Trent. (c) 3 Gns. (e) Oct. 29.

WEMBLEY B.C. (a) Sports pavilion at Preston Park. (b) Borough Treasurer, Town Hall. (c) 2 Gns. (e) Nov. 2.

WEST SUSSEX C.C. (a) Job No. 2643. Conversion of "Marlands," Itchingfield, Nr. Horsham, to provide aged persons' home. (b) County Architect, County Hall, Chichester. (d) Oct. 24.

WEST SUSSEX C.C. (a) Adaptations to provide a new staff room, etc., at Lancaster Secondary School for Girls, Chichester. (b) County Architect, County Hall, Chichester. (d) Oct. 26.

WORTHING B.C. (a) Site No. 1: 44 flats in 11 blocks and Site No. 2: 58 houses on Lot 6 of the Maybridge Estate. (b) Borough Engineer, Town Hall. (c) 2 Gns. (d) Oct. 24. (Applications should give particulars of similar contracts carried out with names of referees.)

PLACED

Notes on contracts placed state locality and authority in bold type with (1) type of work, (2) site, (3) name of contractor and address, (4) amount of tender or estimate. † denotes that work may not start pending final acceptance, or obtaining of licence, or modification of tenders, etc.

BUILDING

CARDIFF CORPORATION. (1) Erection of a crematorium. (2) Thornhill. (3) A. N. Coles, Ltd., Sutton Road, Plymouth. (4) £63,300.

ST. PANCRAS B.C. (1) 26 Flats. 6 maisonettes. (2) East Finchley. (3) Gee, Walker and Slater, Ltd., 100, Park Lane, W.1. (4) £65,000.

PORTSMOUTH CORPORATION. (1) 96 flats. (2) Leigh Park. (3) Faulkners, 113a, London Road, Waterlooville, Hants. (4) £130,000.

BOURNEMOUTH CORPORATION. (a) 154 houses, 28 old people's homes, 36 garages. (2) Fernheath Road. (3) R. Saunders and Sons (London), Ltd., Lee High Road, London, S.E.13.

NORWICH CORPORATION. (1) 186 dwellings. (2) North Park Avenue. (3) Direct Labour. (4) £222,092.

PICKERING'S LIFTS

STOCKTON-ON-TEES

116, VICTORIA ST., S.W.1. Tel.: VIC 9860



"FLEXITILE"

A "Red Hand" Permanent Roofing Felt

D. ANDERSON & SON LTD., Stratford, Manchester

By Appointment to H.M. The King
LIGHTNING CONDUCTOR SPECIALISTS
J. W. GRAY & SON LTD.
37 RED LION ST., HIGH HOLBORN
LONDON, W.C.1. Tel. CHANCERY 8701
Lightning Conductor Specialists
and Church Spire Restorers

"ALTRINDA" DAMPCOURSE

Supplied from Stock

ENGERT & ROLFE LTD.
Poplar, E.14. East 1441

RIBA INTER. FINAL AND SPECIAL FINAL

Postal Courses in all subjects of the 1951 exam. syllabus (including Professional Practice) are conducted by

The ELLIS SCHOOL OF ARCHITECTURE
Principal: A. B. Waters, M.B.E., G.M., F.R.I.B.A.
1038, OLD BROMPTON ROAD, LONDON, S.W.7
Phone: KEN 8641 and at Worcester

BETTERWAYS LTD.
INTERCHANGEABLE LINE
and LETTER SIGNS
WORTON WORKS, WORTON ROAD,
ISLEWORTH, MIDDLESEX
HOUNSLOW 2100

NEW FLOORS for OLD
Wood Floors Planed, Sanded,
Repaired and Treated
FLOOR RENOVATIONS Ltd
38 LAURISTON RD., E.S. Phone: AMH 1000
Sanding machines for hire

DAMP WALLS CAN BE MADE
BONE DRY
WITH ONLY

ONE COAT OF

Penetrex

WATERPROOFING LIQUID



Absolutely Colourless, Penetrex does its job thoroughly, on all surfaces, Outside or Inside. One gallon covers 30 Square Yards. Sold by Builders' Merchants in all sizes from Quart tins to 10 Gallon drums. Send for price and name of nearest Stockists to:

F. A. WINTERBURN LTD.
(Incorporating Lithex Products)
HOLBORN STREET, LEEDS, 6 Tel.: 23008

down to details?

then
it's
as well
to remember..



that an important contributory factor to the safety and dependability of any new building is the use of ASHTON cables and flexibles for all lighting and power duties.

ASHTON cables and flexibles are manufactured to B.S.S. No. 7, 1946 amendment No. 3, August, 1949. F.D. 947.

ASHTON
CABLES & FLEXIBLES

AERIALITE LTD. CASTLE WORKS, STALYBRIDGE, CHESHIRE

Telephone:
ENfield 4877/8

Telegrams:
Quality, Enfield

SHUTTER CONTRACTORS LTD.

LINCOLN WORKS
ENFIELD
MANUFACTURERS OF

Quality

**ROLLING SHUTTERS
IN STEEL, WOOD &
ALUMINIUM ALLOY**

FOR ALL TYPES OF BUILDINGS

APPROVED MANUFACTURERS TO
F.O.C. AND L.C.C. REQUIREMENTS

CONTRACTORS TO
H.M. GOVERNMENT—ALL DEPARTMENTS
PUBLIC UTILITY COMPANIES, COUNCILS
PRINCIPAL RAILWAYS, INSTITUTIONS
Etc.



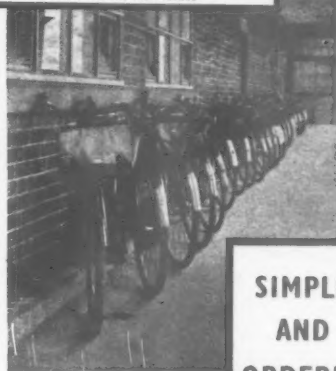
for BATHROOMS, KITCHENS
CANTEENS, Etc.

Specify
VITROLITE wall-lining by
D. W. PRICE of NEASDEN

GLADSTONE 7811-5 and at N.W.10
PECKHAM • ENFIELD • TAUNTON

Stelcon BICYCLE PARKING

British Patent No. 425265



**SIMPLE
AND
ORDERLY**

STELCON (INDUSTRIAL FLOORS) LIMITED
CLIFFORD'S INN LONDON, E.C.4.
Telephone: HOLBORN 2916

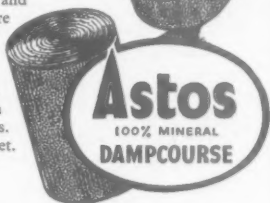


D.C. 88

Charles House, Kensington
Architect: Major Arthur S. Ash, F.R.I.B.A.
Dampcourse: Standard Astos

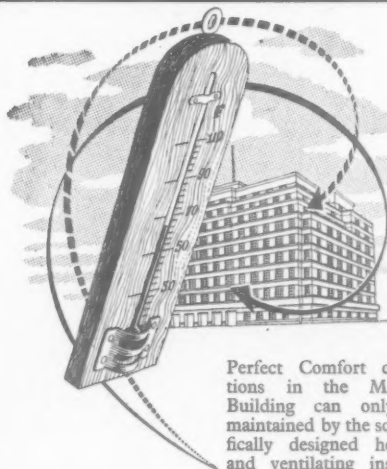
DAMP CANNOT RISE ABOVE THE ASTOS LINE

The increasing specification of Astos Dampcourse for Commercial Buildings, Schools, Housing Schemes and Public Buildings is a sure indication of its popularity where quality is the first consideration. Fully described in leaflet No. 555. Standard or Lead-lined in all wall widths up to 36 inches. Rolls contain 24 lineal feet.



THE RUBEROID COMPANY LIMITED

94, COMMONWEALTH HOUSE, NEW OXFORD STREET, LONDON, W.C.1



Perfect Comfort conditions in the Modern Building can only be maintained by the scientifically designed heating and ventilating installation. For the most up-to-date equipment—

Consult

CANNONS



HEATING, VENTILATING & AIR CONDITIONING ENGINEERS, SPECIALISTS IN OIL GAS & AUTOMATIC FIRING

141-151 NORTH END CROYDON SURREY

Telephone: CROYDON 4535-5789

★ Dohm Vermiculite

FEATHERWEIGHT AGGREGATE

IN

Concrete, Plaster & Loose Fill

SLASHES DEADWEIGHT INCREASES INSULATION

IN

SCHOOLS, FLATS, HOSPITALS
FACTORIES, POWER STATIONS, ETC.

★ DOHM LTD.

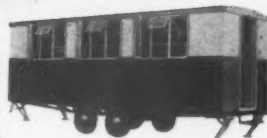
167, VICTORIA STREET, S.W.1. VIC. 1414/5/6 & 7913

THE EFFICIENT MODERN SITEMASTER MOBILE OFFICES

The SITEMASTER GENERAL

Length 22'. Width 7' 4"
Height 6' 8" inside. Weight 30 cwt. Executive's private office 1/3 of length and a general office 2/3rds of length. For 5-6 Staff. Price from £375 ex works.

● The ONLY UNITS built specially for site work with 20 years' working life. ● Solid steel welded chassis, heavy specialist built axles with overrun brakes. ● Large desk in every unit, ample ventilation, interior painted cream. ● Fitted enamel hand basins and waste. Also available: The SITEMASTER MAJOR for 3-4 Staff, from £295 ex works. The SITEMASTER SAPPER for 2-3 Staff, from £245 ex works, and the SITEMASTER MOBILE SLEEPING UNIT 4 berth with fittings from £270 ex works.



STEPHENSON DEVELOPMENTS
(HUDD) LTD.

See us at Stand No. 339 at the Building Exhibition, Olympia, November 14th—28th.

Send for full details today.

Grosvenor Works, Linthwaite, Huddersfield. Phone: Slaithwaite 341/2
London Office and Sitemaster Display: Ludgate Gardens, Ludgate Hill, London, E.C.4
Phone: City 2528

MONOPHALT

(REGISTERED)

THE MASTICS FOR
ROOFING, DAMPCOURSES, FLOORING, ETC.

COMPLYING WITH BRITISH STANDARD SPECIFICATIONS
SUPPLIED AND LAID BY

THE FRENCH ASPHALTE CO.

WHOSE BUSINESS IS INCORPORATED WITH THAT OF

HIGHWAYS CONSTRUCTION LTD.

100, LESLIE HOUSE, CAXTON STREET, LONDON, S.W.1.

PHONE: ABBEY 4366

ACTUAL MANUFACTURERS OF

PLYWOOD and VENEERED PLYWOOD

SPECIALITY — PANELLING

TO

ARCHITECTS' SPECIFICATIONS

RELIABLE PLYWOOD COMPANY LIMITED

PROGRESS WORKS, WARBURTON STREET, LONDON, E.8

Telephone: CIsoid 8135/6

Telegrams: Reliably-Hack, London

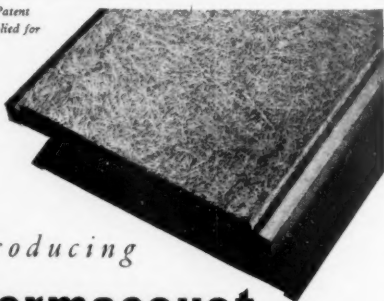
Adamsez Ltd

SANITARY ENGINEERS AND
FIRECLAY MANUFACTURERS

SCOTSWOOD-ON-TYNE

London Showroom: 54, VICTORIA STREET, S.W.1.

Patent
applied for



Introducing

Thermacoust

**REBATED Channel Reinforced
WOOD WOOL ROOFING SLABS**

THERMACOUST 3in. Rebated Roofing Slabs provide higher overall insulation. They are particularly valuable in buildings where the atmosphere may be exceptionally warm or humid. They are rebated to take 1in. insulating cork strips; in severe weather these prevent condensation on the lower flanges of the steel reinforcing channels.

THERMACOUST 3in. Rebated Roofing Slabs have the same advantages for rapid labour-saving construction as the well-known Thermacoust 2in. Roofing Slabs. They are large in unit size, easily handled, can be worked with ordinary wood-working tools. For the majority of applications, we recommend Thermacoust 2in. Roofing Slabs; for the more complicated insulation scheme, architects are now using the 3in. Rebated Slabs for Schools, Factories and Municipal buildings. Standard slabs, both types 6ft. long; 6ft. 8in. and 7ft. slabs made to order.

- ★ For PITCHED or FLAT Roofs
- ★ NO purlins needed at less than 7ft. centres
- ★ NO other insulating material has greater structural strength.

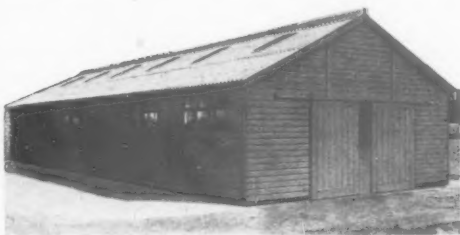
For information, prices and full assistance
of our advisory technical service, write to:-

R.1

THERMACOUST LTD. 39 VICTORIA STREET, LONDON S.W.1 (Abbey 2738)

HALL WIDE SPAN TIMBER BUILDINGS

For CANTEENS • STAFF RECREATION
ROOMS • WORKSHOPS for LIGHT WORK



Hall's are renowned for their timber buildings not only as manufacturers but as prime designers and pioneers. Your needs receive the personal attention of those responsible for the high Hall standard and any building purchased is backed by the reputation, skill and integrity of Halls of Paddock Wood. Buildings for Industry, Education, Sport, Municipal or Constructional needs. Site offices and Contractors' Huts also supplied. Let us quote for your requirements. Supplied free of licence. Write to

HALL'S Dp.A18 **PADDOCK WOOD
TONBRIDGE KENT**

Fire Automatically Sealed!

with

CURFEW FIREPROOF DOORS

Also Manufacturers of Collapsible Steel Gates
CURFEW DOORS & SHUTTERS LTD.
CURFEW WORKS, ANCOATS, MANCHESTER 4
 Telephone: COLlyhurst 2018
TUDOR WORKS, PARK ROYAL, N.W.10 Phone: ELGAR 6954

MANUFACTURERS OF

- Dutch Barns, Garages, etc.
- Pressed-steel Rainwater Goods
- Valley, Box and Wall Gutters
 - Metal Scaffold Boards
 - Brick Pallets
- Sheet Metal Work to any specification

SUPPLIERS OF

- Galvanised and Black Steel Sheets
- Iron and Steel Bars and Sections

Steel-framed
**AGRICULTURAL
 & INDUSTRIAL
 BUILDINGS**

All kinds of
**STRUCTURAL
 STEELWORK**

Steel Stockholders
 and Structural
 and Sheet Metal
 Engineers



DEPT. AG
 OLD LEEDS STEEL WORKS, BALM ROAD,
 Tel.: Leeds 76614-9. Grams: Corflat, Leeds

Leeds 10,

ELECTRICITY

A Power Crisis threatens this Winter

*The reason—demand has grown
faster than the capacity to supply*

The number of domestic consumers has risen by over 1 million compared with three years ago — a 10 per cent increase — but annual domestic consumption is 20 per cent more than it was then. Industrial consumption is increasing even faster. British Industry is now using a fifth more electricity than a year ago and twice as much as before the War.

Still more power is needed for rearmament and for home and export production. It can be supplied, despite the plant shortage, by existing power stations—*if* . . . The “*if*” is that too many users do not switch on at the same time. When they do and “*Peak*” demands become too great, power cuts are necessary.

To help to stop power cuts, domestic users, shops, hotels and offices are urged to keep their electric fires switched off, and to cut down their demand in every possible way during Peak Hours. That will mean some sacrifice in order to keep the factories going.

Industries, in addition to their load-spreading arrangements, must use electricity with the utmost efficiency and economy. Above all there must be

NO WASTE

BRITISH ELECTRICITY



OFFICIAL ANNOUNCEMENTS

APPOINTMENTS • CONTRACTS • TENDERS

Rate 25/- per incb Single Column

Close for press 1st post Monday for following Thursday Issue

APPOINTMENTS

CITY OF BIRMINGHAM EDUCATION COMMITTEE.

APPOINTMENT OF STAFF TO ARCHITECT'S BRANCH.

APPLICATIONS are invited for the following appointments in the Architect's Branch of the Birmingham Education Department (Architect to the Committee: Mr. Alex. Steel, A.R.I.B.A.).

(i) ASSISTANT ARCHITECT.

Salary: A.P.T. VII (£665-£760).

The branch is engaged on a large building programme part of which consists of multi-storey school construction. Applicants should be responsible for the design, working drawings, supervision, as well as administrative work in connection with one or more such schemes. They must be Registered Architects or Chartered Architects.

(ii) ASSISTANT ARCHITECT.

Salary: A.P.T. V (£570-£620).

Applicants must be Registered or Chartered Architects and should have had good general experience in the preparation of schemes and working drawings for educational buildings.

(iii) ARCHITECTURAL ASSISTANT.

Salary: A.P.T. IV (£530-£575).

Applicants should have passed the R.I.B.A. Intermediate Examination or its equivalent at one of the recognised Schools of Architecture and worked in an architectural office for a period of two years. They should be capable of preparing working details for major contracts.

(iv) ARCHITECTURAL ASSISTANT.

Salary: A.P.T. III (£500-£545).

Applicants should either: (i) have attended a full time course in Architecture, passed the R.I.B.A. Intermediate Examination or its equivalent and subsequently worked one year in an architectural office

or (ii) have served or be serving articles of pupillage or worked in an architectural office for three years and have passed the R.I.B.A. Intermediate Examination or its equivalent. They will be expected to prepare working drawing details under supervision.

Application forms, which may be obtained from the undersigned on receipt of a stamped, addressed envelope, must be returned not later than October 31st, 1951.

E. L. RUSSELL,
Chief Education Officer.

Education Office,
General Purposes Branch,
Margaret Street,
Birmingham, 3.

[5849]

MINISTRY OF EDUCATION.

H.M. INSPECTORS.

APPLICATIONS are invited from men and women for posts of H.M. INSPECTOR. Candidates, who should preferably be under 50 on December 31st, 1951, should normally possess appropriate professional qualifications and/or a degree, together with teaching experience in technical colleges or universities, and practical experience in one of the following:—

Agriculture; Civil, Mechanical, Electrical, Chemical or Aeronautical Engineering; Nautical Education; Metallurgy; Food Technology; Architecture; Building; Management Studies.

Those candidates who appear most suitable from their application forms will be invited to appear before a Selection Board in London on which the Civil Service Commissioners will be represented.

The posts which are permanent and pensionable carry a salary scale for the London area of:—

£1,000-£400-£1,200-£500-£1,525 (Man).
£990-£330-£990-£400-£1,190-£500-£1,355 (Woman).

(A number of posts of special responsibility carry a £100 pensionable allowance, and Inspectors are eligible for promotion to certain higher posts.) The scales for Inspectors working outside the London area are slightly lower at all points. In special cases, successful candidates may be appointed at a commencing salary above the minimum.

Further particulars, together with an application form, may be obtained on written request to The Secretary (Inspectors' Section), Ministry of Education, Curzon Street, London, W.1. The closing date for applications will be 31 January, 1952.

[5851]

APPOINTMENTS—contd.

KENT COUNTY COUNCIL.

APPLICATIONS are invited for appointment in the Buildings Department of a BUILDING SURVEYOR at a salary in A.P.T. Grades IV-V(a) (£530-£660). The commencing salary will be dependent upon qualifications and experience.

Applicants should have had practical experience in the building trade and be thoroughly competent to supervise work and prepare specifications and detailed estimates in connection with the maintenance of buildings, and to prepare drawings for new projects of a minor nature. They should preferably be Licentiates of the Institute of Builders by examination or have passed the examination for Building Surveyors of the Royal Institute of British Architects or hold an equivalent qualification.

Applications, on forms obtainable from the County Architect, Springfield, Maidstone, should be submitted to him within fourteen days of the appearance of this advertisement.

W. L. PLATTS,
Clerk of the County Council.

County Hall, Maidstone.

3rd October, 1951.

[5847]

APPLICATIONS are invited for the following posts in the Architect's Branch of the Northern (N. & C.) Divisional Coal Board:—

SENIOR ARCHITECT (£850-£935-£1,150). Qualifications required: Associateship R.I.B.A.; recent experience in the design and supervision of large modern buildings. The successful applicant will act as Deputy to the Chief Architect and must have had experience in the administration and organisation of an office.

ARCHITECT GRADE I (£700-£825-£875). Qualifications required: Final examination R.I.B.A.; ability to design, organise and supervise modern building schemes, and to take charge of a section of the office.

ARCHITECT GRADE II (£450-£625-£700). Qualifications required: Final examination R.I.B.A.; good experience in preparation of sketch and working drawings for large schemes and arrangement of sub-contracts.

ARCHITECTURAL ASSISTANT GRADE I (£410-£520-£550). Qualifications required: Student R.I.B.A., with experience in preparation of working drawings under supervision.

Starting salaries according to qualifications and experience.

These posts offer excellent opportunities in a new office to keen and capable Architects.

Applications, stating age, training, experience, present appointment and salary, clearly indicating for which post application is made, should be submitted not later than 8th November, 1951, to:—

The Establishment Officer,
National Coal Board,
Northern (N. & C.) Division,
Elision Buildings,
Elision Place,
Newcastle upon Tyne.

[5855]

HUNTINGDONSHIRE COUNTY COUNCIL

COUNTY ARCHITECT'S DEPARTMENT

ARCHITECTURAL ASSISTANT, GRADE II A.P.T.

APPLICATIONS are invited for the appointment of an ARCHITECTURAL ASSISTANT, Grade II A.P.T. £470-£515 to £515 per annum.

The appointment is subject to the provisions of the Local Government Superannuation Act, 1937.

Applications should be submitted to S. J. Hands, A.R.I.B.A., County Architect, County Buildings, Huntingdon, by not later than Wednesday, 31st October, 1951, with copies of two recent testimonials or the names of two referees.

JOHN KELLY,
Clerk of the County Council.

County Buildings,
Huntingdon,
18th October, 1951.

[5853]

APPOINTMENTS—contd.

COUNTY BOROUGH OF ROCHEDALE.

APPOINTMENT OF SENIOR ASSISTANT QUANTITY SURVEYOR.

APPLICATIONS are invited for the appointment of SENIOR ASSISTANT QUANTITY SURVEYOR in the Department of the Borough Surveyor, at a Salary of £600-£660 per annum (Grade A.P.T. Va.).

Applicants must have passed the Final Examination of the R.I.C.S. (Quantities Section) and should have had considerable experience in the preparation of Bills of Quantities, measurement of site works and the preparation of Statements for Interim and Final Payments.

Applications will be considered from candidates who may not be so fully qualified, the Grade and salary of the position being in accordance with qualifications and varying as follows:—Grade II (£470-£515) for a candidate with some experience, but not having passed the Intermediate Examination of the R.I.C.S., Grade III or IV (£500-£545 or £530-£575) for candidates who have passed the Intermediate Examination and Grade V (£570-£620) if the Final Examination of the R.I.C.S. has been passed.

The appointment will be subject to the provision of the Local Government Superannuation Acts, and to the selected candidate passing a Medical Examination. Caravassing is prohibited and candidates must disclose whether to their knowledge they are related to any member or Senior Officer of the Council.

Applications, stating position applied for, age, qualifications and full particulars of experience together with the names and addresses of two persons to whom reference may be made, and endorsed "Quantity Surveyor" must be delivered to the Borough Surveyor, Town Hall, Rochdale, not later than 9 a.m. on Thursday, November 1st, 1951.

K. B. MOORE,
Town Clerk.
[5850]

COUNTY BOROUGH OF SOUTHAMPTON

BOROUGH ENGINEER & SURVEYOR'S DEPARTMENT

APPLICATIONS are invited for the following appointments:—

(a) ARCHITECTURAL ASSISTANT, Grade A.P.T. III (£500-£545).

(b) JUNIOR ARCHITECTURAL ASSISTANT, General Division (£150-£425).

(c) ASSISTANT QUANTITY SURVEYOR, Grade A.P.T. VI (£645-£710).

(d) MEASURING SURVEYOR, Grade A.P.T. I (£440-£485).

Applicants for (a) should have had experience of Local Authority Housing, and preference will be given to student members of the Royal Institute of British Architects.

Applicants for (b) should have had some Architectural Drawing Office experience.

Applicants for (c) should have passed the Final Examination of the Royal Institute of Chartered Surveyors (sub-Division IIQ) and should have had experience in all branches of Housing work.

Applicants for (d) should be experienced in site measuring.

The appointments will be subject to the Scheme of Conditions of Service of the National Joint Council for Local Authorities for Administrative, Technical, Professional and Clerical Services, to the Local Government Superannuation Act, 1937; to the successful applicants passing a medical examination, and to termination by one month's notice on either side in respect of (a), (c) and (d) and one week in the case of (b).

Applications, stating age, experience, qualifications and war service (if any), together with copies of three recent testimonials, should be submitted to the Borough Engineer & Surveyor, City Centre, Southampton, not later than Monday, 5th November, 1951.

R. RONALD H. MEGGESON,
Town Clerk.
[5858]

APPOINTMENTS—contd.**CITY OF BIRMINGHAM****PUBLIC WORKS DEPARTMENT**

APPLICATIONS are invited for the post of **QUANTITY SURVEYOR**, Grade A.P.T. VII (£685-£760 per annum).

Applicants must be Associate Members of the Royal Institution of Chartered Surveyors (Quantity Section) and have had considerable experience and be competent to take off and prepare Bills of Quantities for all types of buildings.

The salary is in accordance with the National Scale of Salaries and the commencing salary will be fixed at an incremental point within the Grade according to the qualifications and experience of the candidate appointed.

The appointment may be terminable by one month's notice on either side.

The successful applicant will be required to undergo a medical examination by a Corporation Doctor and the appointment is subject to the provisions of the Local Government Superannuation Act, 1937.

Applications endorsed "Quantity Surveyor" stating qualifications and experience, together with the names and addresses of two persons to whom reference can be made, should reach the undersigned not later than the 16th November, 1951.

Canvassing, either directly or indirectly, will disqualify.

HERBERT J. MANZONI,

City Engineer and Surveyor.

The Civic Centre, Birmingham, 1. [5856]

CORPORATION OF LONDON.**APPOINTMENT OF ARCHITECTURAL ASSISTANT—AUXILIARY STAFF.**

APPLICATIONS are invited for the appointment of an **ASSISTANT** within the range of Higher Grade I, £400 x £25 to £625, commencing salary to be subject to age, experience and qualifications. The first £400 of the salary is subject to 15 per cent and the remainder to 7½ per cent cost-of-living bonus.

Applicants should have had good office experience and have passed or be preparing for Intermediate R.I.B.A. or R.I.C.S. Examination.

The appointed officer will require to pass a medical examination and to contribute to the Corporation's Superannuation Fund as maintained under the City of London (Various Powers) Acts, 1931 and 1950.

Applications, giving full personal details, particulars of qualifications, experience, age, past and present appointments and the names of two persons to whom reference may be made, should be sent to the City Surveyor, Corporation of London, 55/61, Moorgate, London, E.C.2, not later than the 31st October, 1951. [5857]

MISCELLANEOUS SECTION

RATE: 1/6d. per line, minimum 3/-, average line 6 words. Each paragraph charged separately. Semi-displayed 25/- per inch. **BOX NOS.** add 2 words plus 1/- for registration and forwarding replies.

PRESS DAY Monday. Remittances payable to Iliffe & Sons Ltd., Dorset House, Stamford Street, London, S.E.1.

No responsibility accepted for errors.

ARCHITECTURAL APPOINTMENTS VACANT

TEMPORARY assistant architects required in architect's office of the Civil Engineer's Department, British Railways (located in London). Will be employed on large reconstruction schemes. Must be member of R.I.B.A. and have had good experience in design and detailing of modern buildings. Salary according to age and experience up to £575 per annum. Certain residential travelling facilities granted. Replies should be sent to: Civil Engineer, The Railway Executive, London Midland Region, Euston Grove, London, N.W.1. [5843]

ARCHITECTURAL ASSISTANT required immediately in the works section of the London Co-operative Society, Ltd. Applicants should preferably have reached the standard of Inter R.I.B.A. and have had experience in the layout of design of commercial and industrial buildings; the successful candidate will be required to pass a medical examination after a short probationary period, and to participate in the Society's staff pension scheme (contributory); salary £496 per annum (inclusive).—Reply, stating age, technical qualifications, full details of past experience and positions held, to the Staff Office (A.B.N.), London Co-operative Society, Ltd., 54, Maryland St., Stratford, E.15. [5854]

SITUATIONS VACANT

CIVIL engineer (designer) required in London by British Railways, with good knowledge of industrial building construction and design. Must be capable of supervising junior staff on the preparation of schemes. Commencing salary £550 per annum. Certain residential travelling facilities granted.—Replies to Civil Engineer, London Midland Region, British Railways, Euston Grove, London, N.W.1. [5844]

BUILDING Surveyors required by large cinema circuit in London. Applicants must have had considerable experience in the supervision of building works and decorative schemes. Must also be able to prepare drawings and specifications for all types of structural work. Knowledge of theatre furnishings an advantage but not essential. Salary according to qualifications. Excellent prospects. Five day week and pension scheme. Write giving full details of age, experience and salary required to Box 4456. [5834]

SITUATIONS VACANT—contd.

STRUCTURAL draughtsman required for Leamington Spa area. experience in design of industrial buildings and alterations necessary, knowledge of building work would be an advantage.—Copies of testimonials and salary required to Box 3013. [0111]

SERVICES OFFERED

THATCHING and reedlaying contracts undertaken by experts.—J. G. Cowell, Soham, Ely, Cambs. [0112]

PROFESSIONAL Artist prepares coloured perspectives, interiors and sketch plans. Quotations by return.—Turner, 3, George St., Croydon, 2950. [5803]

FOR SALE

ALL Mouldings, Plain and Embossed, and Embossed ornaments. Numerous designs. Darve's Moulding Mills, Ltd., 60, Fownall Rd., Dalston, E.8. [0086]

RECONDITIONED ex-Army huts, and manufactured buildings: timber, asbestos, Nissen-type, hall-type, etc.; all sizes and prices.—Write, call or telephone, Universal Supplies (Belvedere), Ltd., Dept. 32, Crabtree Manorway, Belvedere, Kent. Tel. ERIB 2948. [0110]

MOBILE air compressor for sale. Armstrong Whitworth compressor, 100 c.f.m. at 100 p.s.i. with receiver gauges, three take off points, etc., direct coupled to Dorman petrol engine, mounted on Dennis chassis, short wheel base.—Full details, photo, F. J. Edwards, Ltd., 359, Euston Rd., London. Euston 4681. [5852]

MISCELLANEOUS

GARDENS and sports grounds constructed and renovated, turfing, seeding, cultivations, land drainage, etc.—D. Sullivan & Co., 90, Devonshire Rd., London, S.E.23. Tel. FR 2187. [5848]

FREE ESTIMATES for complete SUPPLY and PLANTING of HEDGING, Avenues, Ornamental Lay-out on Housing Sites, etc. Screening Works. Quarries, Sandpits, etc.—FOREST NURSERIES (DARLEY DALE), Ltd., Derbyshire. [5826]

RHODODENDRONS, azaleas, ornamental flowering trees and shrubs, heathers, hedging and herbaceous plants, camellias, roses, iris, and other choice plants for all garden requirements; the Knaphill strain of azaleas is supreme.—Descriptive catalogue from The Knap Hill Nursery, Ltd., Woking, Surrey. [5780]

QUICKTHORNS.—Special Offer, Three Year Extra Quality Fibrous Rooted, Nursery Grown Plants: 18-30in, 30/-, 280/-; 30-40in, 35/-, 330/-; OVAL LEAF PRIVET, really well-rooted and broken: 1-1½ft, 25/-, 230/-; 1½-2ft, 32/6, 310/-; 2-2½ft, 40/-, 380/- . Prices are at per 100 and per 1,000 respectively. Carriage paid; C.W.O.—Garden Beauty Products, Newhouse Nurseries, Wickford, Essex. (Wickford 52) [0115]

A useful book for "A. & B.N." readers: DOMESTIC WATER HEATING

Basic Engineering Principles of Electric and Solid-fuel Installations

This book by **RONALD GRIERSON, M.I.E.E., M.I.Mech.E.**, provides a critical analysis of current practice in the supply of hot water for domestic purposes. The increasing cost of and enormous demand for new housing have made the time opportune for such an investigation, for it is generally conceded that the standard of efficiency and running costs of many present-day household installations leave much to be desired.

The only remedy for their deficiencies lies in the application of sound engineering principles, and these the author has applied to the design of water-heating plant of the solid fuel/electric type.

The book deals mainly with the combination of an electric immersion heater and thermostat with

the conventional hot-water storage tank, in conjunction with a coal- or coke-fired domestic water heater, the water heater being arranged either as a "back-boiler" or as an independent unit.

The author contends that a suitably arranged installation of this type can be both economical and efficient, and disposes conclusively of the notion that "electric water heating is convenient but expensive."

The book contains, in addition, considerable reference to the factory-made, self-contained, storage type of electric water heater.

25s. net. By post 25s. 7d.

Obtainable at all good booksellers or direct by post from:—



Iliffe & Sons Ltd., Dorset House, Stamford St., London, S.E.1

FOR YOUR ROOFING PROGRAMME

SLATES are BEST**U
S
E
PENRHYN
RED, BLUE & GREY
SLATES**

Apply

PENRHYN QUARRIES,

B. G. F. Adlington, Agent,

PORT PENRHYN, BANGOR, N. WALES**THE COLLEGE OF ESTATE MANAGEMENT**

St. Albans Grove, Kensington, W.8

Day and Evening Courses for the following Examinations:
University of London Degree of B.Sc. (Estate Management), commence in October. (Day courses only).

Applications by 31st May.

Royal Institution of Chartered Surveyors (Building, Quantities and Valuations sub-divisions), commence in April.

Applications by 31st December.

Postal Courses

B.Sc. (Estate Management), commence in January and July. The Royal Institution of Chartered Surveyors, Institution of Municipal Engineers, Royal Sanitary Institute, commence in April and October. Town Planning Institute, commence in May and October.

Application forms to reach the College two complete calendar months prior to commencement of course.

Applications to The Secretary.

Telephone: Western 1546.

POST-WAR REBUILDING

**PORTLAND STONE
MONKS PARK STONE****THE BATH & PORTLAND STONE FIRMS LTD.**Head Office :
BATH
Tel.: 3248-9PORTLAND
Tel.: 3113LONDON OFFICE :
Grosvenor Gardens House, S.W.1
Tel.: VICTORIA 9182-3**LIFTS**by **MORRIS****Herbert Morris Ltd**
Loughborough

Engineering branches in London, Glasgow, Manchester, Birmingham, Leeds, Sheffield, Newcastle, Cardiff, Bristol, Dundee, Liverpool, Nottingham, Bury St. Edmunds, Belfast

Folders for A & B N Detail Sheets

"I KNOW WE'VE GOT A DETAIL OF THAT SOMEWHERE"—But where? The best way to file your A. & B.N. Detail Sheets so that you can put your hand on the one you want in a matter of seconds, is in a folder specially designed to hold them, clearly labelled on the spine for quick reference on the bookshelf.

Serviceable folders in double duplex manilla, with pocket to hold one year's issue of sheets, may be ordered now. Price 5/-, postage 6d. extra, from :—

Publishing Department :

"The Architect & Building News,"

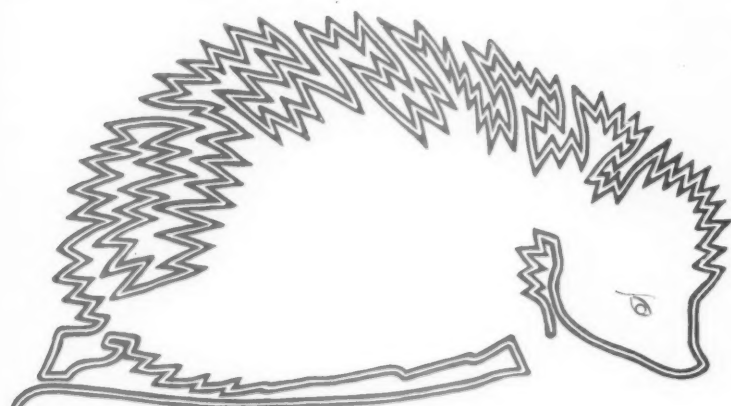
Dorset House, Stamford Street,

London, S.E.1.

INDEX TO ADVERTISERS

Official Notices, Tenders, Auction, Legal and Miscellaneous Appointments on pages 28 and 29

Adamite Co., Ltd., The	21	Dennison Kett & Co., Ltd.	21	Industrial Engineering, Ltd.	17	Radiation, Ltd.	6
Adamses, Ltd.	26	Docker Bros.	16	Kirk & Kirk, Ltd.	5	Reliable Plywood Co., Ltd.	26
Aerialite, Ltd.	24	Dohm, Ltd.	25	Kinnear Shutters	4	Reynolds, H. L., Ltd.	27
Albright & Wilson, Ltd.	1	Ellis School, The	23	Lockwood, R. Wm.	23	Ruberoid Co., Ltd., The	25
Anderson, D. & Son, Ltd.	23	Engert & Rolfe, Ltd.	23	Margolis, M.	23	Shutter Contractors, Ltd.	24
Bath & Portland Stone Firms, Ltd.	30	French, Thomas, & Sons, Ltd.	13	Marley Tile Co., Ltd., The	15	Stannah Lifts, Ltd.	21
Betterways, Ltd.	23	Floor Renovations, Ltd.	23	Marray & Scott, Ltd.	11	Stelcon (Industrial Floors), Ltd.	24
Blackwells & National Roofings Ltd.	10	Gas Council, The	3	McCarthy, M. & Sons, Ltd.	21	Stephenson Developments (Hydd), Ltd.	25
Boulton & Paul	12	Gibson, Arthur L. & Co., Ltd.	4	Mealing Bros., Ltd.	21	Tentest Fibre Board Co., Ltd.	23
Bratt Colbran, Ltd.	10	Gimson & Co. (Leicester), Ltd.	22	Midland Joinery Works, Ltd.	22	Thompson, John, Beacon Window, Ltd.	14
Briggs, William, & Sons, Ltd.	8	Gray, J. W., & Son, Ltd.	23	Modern Tile & Floor Co., Ltd.	23	True-Flue, Ltd.	23
Bright's Asphalt Contractors, Ltd.	21	Hall's (Tonbridge, Kent)	26	Morris, Herbert, Ltd.	30	Walker Bros., Ltd.	20
British Electric Authority	27	Hall, J. & E., Ltd.	9	Mullen & Lumsden, Ltd.	21	Ward, Thomas W., Ltd.	21
Building Trades Exhibition	12	Harvey, G. A., & Co. (London), Ltd.	11	Newman, William, & Sons, Ltd.	Inside Front Cover	Warry Patent Building Equipment Co., Ltd.	23
Cannon, W. & G. & Sons, Ltd.	25	Henley's, W. T., Telegraph Co., Ltd.	Outside Back Cover	Penrhyn Quarries	30	West's Piling & Construction Co., Ltd.	18
Carcon Company	20	Highways Construction, Ltd.	26	Pickering's, Ltd.	23	Winterburn, F. A., Ltd.	23
Celcon, Ltd.	2	Ibstock Brick & Tile Co., Ltd.	18	Pikington Bros., Ltd.	19	Wood, Edward, & Co., Ltd.	7
College of Estate Management	30			Price, D. W.	24		
Crompton-Parkinson, Ltd.	Inside Back Cover						
Curfew Doors & Shutters, Ltd.	27						



**BRISTLING
WITH GOOD POINTS**

Crompton

RUBBER CABLE



CROMPTON PARKINSON LIMITED, CROMPTON HOUSE, ALDWYCH, LONDON, W.C.2

Telephone : CHAncery 3333

Telegrams : Crompark, Estrand, London

A successful conversion



A fine old country mansion which has been successfully converted to meet modern requirements (a view from the south).

Photo: Cheshire Life

In these days few people can afford to run a large country mansion, and so it was decided to convert this property into three separate houses. The conversion has been remarkably successful, resulting in three easily manageable self-contained residences of distinct character.

Renewal of the electric wiring, which had been originally installed for a private lighting plant was essential. The rewiring has been carried out exclusively with

Electrical Contractors:

HARRISONS

39 Station Road, Northwich

View from the north-west showing the entrance courtyard. Architects for the conversion: A. C. Fairclough, M.A., F.R.I.B.A., and D. R. Morris, A.R.I.B.A. Long Acre, London, W.C.2



HENLEY CABLES

W. T. HENLEY'S TELEGRAPH WORKS CO. LTD.
51-53 HATTON GARDEN, LONDON, E.C.1

